



Method Note Compendium

Updated June 29, 2021

Contents

Agriculture

Extraction of Cannabinoids from Cannabis/ Hemp Plant	5
Extraction of Dioxins from Feeds/Foods (Wet)	6
Extraction of Pesticides from Avocados	7
Extraction of Pesticides from Bixin Powder	8
Extraction of Pesticides from Black Pepper	9
Extraction of Pesticides from Black Tea	10
Extraction of Pesticides from Blueberries	11
Extraction of Pesticides from Cannabis Edibles	12
Extraction of Pesticides from Cannabis/ Hemp Plant	13
Extraction of Pesticides from Cinnamon	14
Extraction of Pesticides from Cranberries	15
Extraction of Pesticides from Curcumin	16
Extraction of Pesticides from Foods (Wet)	17
Extraction of Pesticides from Norbixin	18
Extraction of Pesticides from Oregano	19
Extraction of Pesticides from Paprika	20
Extraction of Pesticides from Rice	21
Extraction of Pesticides from Salmon	22
Extraction of Pesticides from Sodium Copper Chlorophyllin Powder	23
Extraction of Pesticides from Strawberries	24
Extraction of PFAS from Carrots	25
Extraction of PFAS from Cranberries	26
Extraction of PFAS from Lettuce	27
Extraction of PFAS from Potatoes	28
Extraction of PFAS from Strawberries	29
Extraction of Polyphenols from Cacao	30
Extraction of Solubles from Tobacco	31

Cannabis

Extraction of Cannabinoids from Cannabis/ Hemp Plant	33
Extraction of Pesticides from Cannabis Edibles	34
Extraction of Pesticides from Cannabis/ Hemp Plant	35

Environmental & Regulatory

Extraction of Diesel and Oils from Soil	37
Extraction of Dioxins from Soil, Loam, or Clay	38
Extraction of Organic Compounds from Soils, Clays, Sediments, Sludges, and Waste Solids (EPA 3545A)	39
Extraction of PAHs from Soil, Loam, or Clay	40
Extraction of PCBs from Soil, Loam or Clay	41
Extraction of PFAS from Carrots	42
Extraction of PFAS from Cranberries	43
Extraction of PFAS from Lettuce	44
Extraction of PFAS from Potatoes	45
Extraction of PFAS from Soil	46
Extraction of PFAS from Strawberries	47

Food Testing

Extraction of Cannabinoids From Cannabis/ Hemp Plant	49
Extraction of Dioxins From Feeds/Foods (Wet)	50
Extraction of Fat From Baking Products	51
Extraction of Fat From Nut Products	52
Extraction of Oil From Coffee Grinds	53
Extraction of PAHs From Yerba Mate	54
Extraction of Pesticides From Avocados	55

Extraction of Pesticides from Bixin Powder	56
Extraction of Pesticides from Black Pepper	57
Extraction of Pesticides From Black Tea	58
Extraction of Pesticides From Blueberries	59
Extraction of Pesticides from Cannabis Edibles	60
Extraction of Pesticides From Cannabis/ Hemp Plant	61
Extraction of Pesticides from Cinnamon	62
Extraction of Pesticides from Cranberries	63
Extraction of Pesticides from Curcumin	64
Extraction of Pesticides from Foods (Wet)	65
Extraction of Pesticides from Norbixin	66
Extraction of Pesticides from Oregano	67
Extraction of Pesticides from Paprika	68
Extraction of Pesticides from Rice	69
Extraction of Pesticides from Salmon	70
Extraction of Pesticides from Sodium Copper Chlorophyllin Powder	71
Extraction of Pesticides from Strawberries	72
Extraction of PFAS from Carrots	73
Extraction of PFAS from Cranberries	74
Extraction of PFAS from Lettuce	75
Extraction of PFAS from Potatoes	76
Extraction of PFAS from Strawberries	77
Extraction of Polyphenols from Cacao	78
Hydrolysis & Extraction of Fat from Baking Products	79
Hydrolysis & Extraction of Fat from Nut Products	80

Plastics, Polymers, & Oils

Extraction of Additives From Polyethylene Powder	87
Extraction of Additives From Polypropylene Powder	88
Extraction of Chemical Modifier from Polyethylen Resin	e 89
Extraction of Diesel and Oils from Soil	90
Extraction of Film Powder	91
Extraction of Phthalates From Polyvinyl Chloride	92

Materials Science

Extraction of Additives From Polyethylene Powder	82
Extraction of Additives From Polypropylene Powder	83
Extraction of Film Powder	84
Extraction of Phthalates from Polyvinyl Chloride	85

Agriculture

Extraction of Cannabinoids from Cannabis/Hemp Plant

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

Possessing, using, distributing, or selling marijuana or marijuana-based products constitute federal crimes in the United States, even where a state law decriminalizes or legalizes such activities. CEM Corporation produces instruments that are intended for use in testing laboratories and applications only where such use is permitted under applicable state/country law.

Sorbents	Solvents
N/A	Options: 2-Propanol (IPA) Methanol

Sample Weight	Equipment	Q-Disc
≤ 0.5 g	EDGE 50 mL centrifuge tubes Q-Screen	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	15	0	5	45	5:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	2-Propanol (IPA)	20	80	0:05
2	Methanol	10		;
Conorol Cuidalines				

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Dioxins from Feeds/Foods (Wet)

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
None					
Sorbents			Solvents		
N/A			Options: Dichloromethane Methyl tert-butyl eth Toluene	er	
Sample Weight		Equipment		Q-Disc	
≤ 5 g		EDGE Q-Screen 60 mL collection vials		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	150	1:00
2	20	0	0	150	1:00
3	20	0	0	150	1:00
Note: Temperature and	hold times may vary d	epending on the sample and ana	alytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Extraction Solver	nt	30	150	0:30
2	Extraction Solver	nt	30		:
General Guidelines					
a) This procedure is a	a reference point for	sample extraction using a C	FM system and may ne	ed to be modified or ch	anged to obtain

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from Avocados

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.

2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.

3. Weigh the sample into the Q-Cup layering the sample on top of the sorbent. Gently mix the sample and sorbent mixture with a glass stir rod, ensuring that the Q-Disc is not damaged.

4. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle. Add 1:00 bubbling to Cycle 1 by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Q-Matrix Hydra™ (2.5 g) Sodium Citrate (0.25 g) Sodium Bicarbonate (0.25 g)	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight	Equipment	Q-Disc
≤ 10 g	EDGE 50 mL centrifuge tubes Q-Screen	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	3:00
2	0	0	10		:

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	10	40	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from **Bixin Powder**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes						
Sorbents			Solvents			
			Acetonitrile w/ 1.0% Ac Methanol	etic Acic	1 (v/v)	
Sample Weight		Equipment			Q-Disc	
≤ 1 g		EDGE 50 mL centrifuge tubes Q-Screen			S1	
Heating Program						
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp ((°C)	Hold (mm:ss)
1	15	0	10	40		3:00
Note: Temperature and h	old times may vary de	pending on the sample and analy	/tes of interest.			
Wash Program						
Cycle	Solvent		Volume (mL)	Temp ((°C)	Hold (mm:ss)
1	Methanol		40	120)	0:30
2	Methanol		40	100)	0:30
3	Acetonitrile w/ 1.0	% Acetic Acid (v/v)	40	40		:
General Guidelines						
a) This procedure is a	reference point for	sample extraction using a CE	M system and may need	to be mo	odified or chang	ed to obtain

required results on your sample or analytes of interest. b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from **Black Pepper**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle.

Sorbents	Solvents
PSA (150 mg)	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight		Equipment		Q-Disc	
≤ 2 g		EDGE 50 mL centrifuge tubes Q-Screen		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	15	0	0	40	3:00
2	0	0	5		:

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	15	40	0:03
General Guidelines				

Extraction of Pesticides from **Black Tea**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle.

Sorbents	Solvents
N/A	Acetonitrile

Sample Weight	Equipment	Q-Disc
2 g	EDGE 50 mL centrifuge tubes Q-Screen	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	10	0	0	40	1:30
2	0	0	5		;

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile	10	40	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from **Blueberries**

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.

2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.

3. Weigh the sample into the Q-Cup layering the sample on top of the sorbent. Gently mix the sample and sorbent mixture with a glass stir rod, ensuring that the Q-Disc is not damaged.

4. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle. Add 1:00 bubbling to Cycle 1 by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Q-Matrix Hydra™ (2.5 g) PSA (0.5 g)	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight	Equipment	Q-Disc
≤ 10 g	EDGE 50 mL centrifuge tubes Q-Screen	S1

Heating Program	I				
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	3:00
2	0	0	10		:

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	10	40	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from Cannabis Edibles

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

Possessing, using, distributing, or selling marijuana or marijuana-based products constitute federal crimes in the United States, even where a state law decriminalizes or legalizes such activities. CEM Corporation produces instruments that are intended for use in testing laboratories and applications only where such use is permitted under applicable state/country law.

Sorbents	Solvents
N/A	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight	Equipment	Q-Disc
0.3 g	EDGE 50 mL centrifuge tubes Q-Screen	S1
Heating Program		

Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	15	40	0:03
2	Acetonitrile w/ 1.0% Acetic Acid (v/v)	15		:

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from Cannabis/Hemp Plant

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

Possessing, using, distributing, or selling marijuana or marijuana-based products constitute federal crimes in the United States, even where a state law decriminalizes or legalizes such activities. CEM Corporation produces instruments that are intended for use in testing laboratories and applications only where such use is permitted under applicable state/country law.

Sorbents	Solvents
N/A	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight		Equipment		Q-D	isc	
≤ 1.5 g		EDGE 50 mL centrifuge tubes Q-Screen		S1		
Heating Program						
Cvcle	Top Add (mL)	Bottom Add (ml.)	Rinse (ml.)	Temp (°C)	Hold (mm:ss)	

Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Cycle Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1 Acetonit	trile w/ 1.0% Acetic Acid (v/v)	10	40	0:30

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from **Cinnamon**

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.

2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle.

Sorbents	Solvents
N/A	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight	Equipment	Q-Disc
≤ 2 g	EDGE 50 mL centrifuge tubes Q-Screen	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	3:00
3	0	0	5		;

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	10	40	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from **Cranberries**

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.

2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.

3. Weigh the sample into the Q-Cup layering the sample on top of the sorbent. Gently mix the sample and sorbent mixture with a glass stir rod, ensuring that the Q-Disc is not damaged.

4. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle. Add 1:00 bubbling to Cycle 1 by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Q-Matrix Hydra™ (2.5 g) PSA (0.5 g)	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight	Equipment	Q-Disc
≤ 10 g	EDGE 50 mL centrifuge tubes Q-Screen	S1

Heating Program	I				
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	3:00
2	0	0	10		:

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	10	40	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from Curcumin

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes						
Sorbents			Solvents			
N/A			Acetonitrile w/ 1.0 ^o Methanol	% Acetic Acio	d (v/v)	
			moundation			
Sample Weight		Equipment			Q-Disc	
≤ 1 g		EDGE			S1	
		50 mL centrifuge tubes Q-Screen				
Heating Program						
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp	(°C)	Hold (mm:ss)
1	15	0	10	40		3:00
Note: Temperature and he	old times may vary de	epending on the sample and ana	lytes of interest.			
Wash Program						
Cycle	Solvent		Volume (mL)	Temp	(°C)	Hold (mm:ss)
1	Methanol		40	120)	0:30
2	Methanol		40	100)	0:30
3	Acetonitrile w/ 1.0	% Acetic Acid (v/v)	40	40		:
General Guidelines						

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from Foods (Wet)

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup layering the sample on top of the sorbent. Mixing is not required.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle. Add 2:00 bubbling to Cycle 1 by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Q-Matrix Hydra™ (2.5 g)	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight		Equipment		Q·	Disc	
≤ 5 g		EDGE 50 mL centrifuge tubes Q-Screen		Sí		
Heating Program						
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C) Hold (mm:ss)	
1	25	0	5	40	1:00	

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	10	40	0:03

10

--:--

General Guidelines

2

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

0

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

e) Bring to volume or evaporate as necessary for analysis.

0

Extraction of Pesticides from **Norbixin**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
Carbonto			Colvente		
Sorbents			Solvents	A (A A A A A A A A A A	
			Acetonitrile w/ 1.0 Acetone	% Acetic Acid (v/v)	
Sample Weight		Equipment		Q-Disc	
≤ 1 g		EDGE 50 mL centrifuge tubes Q-Screen		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	15	0	10	40	3:00
Note: Temperature and h	old times may vary	depending on the sample and anal	ytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetone		40	120	0:30
2	Acetone		40	100	0:30
3	Acetonitrile w/ 1	1.0% Acetic Acid (v/v)	40	40	:
General Guidelines					
a) This procedure is a required results on you	reference point four sample or analy	or sample extraction using a CE ytes of interest.	M system and may	need to be modified o	r changed to obtain

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from **Oregano**

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.

2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle.

Sorbents	Solvents
N/A	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight	Equipment	Q-Disc
≤ 2 g	EDGE 50 mL centrifuge tubes Q-Screen	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	3:00
2	0	0	5		:

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	10	40	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from **Paprika**

2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Procedure

Notes The second cycle in the heating program is a "Rinse Only" cycle. Sorbents Solvents N/A Acetonitrile w/ 1.0% Acetic Acid (v/v) **Sample Weight** Equipment Q-Disc ≤ 2 g S1 **Heating Program** Cycle Top Add (mL) Bottom Add (mL) Rinse (mL) Temp (°C) Hold (mm:ss) 1 0 0 40 3:00 15 2 0 0 5 --:--____ Note: Temperature and hold times may vary depending on the sample and analytes of interest. Wash Program Hold (mm:ss) Cycle Solvent Volume (mL) Temp (°C) 1 Acetonitrile w/ 1.0% Acetic Acid (v/v) 15 40 0:003 **General Guidelines**

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place

entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.

Extraction of Pesticides from **Rice**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
None					
Sorbents			Solvents		
N/A			Acetonitrile w/ 1.	0% Acetic Acid (v/v)	
Sample Weight		Equipment		Q-Disc	
≤ 2 g		EDGE 50 mL centrifuge tubes Q-Screen		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	3:00
Note: Temperature and	d hold times may vary	depending on the sample and and	alytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1	.0% Acetic Acid (v/v)	10	40	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from **Salmon**

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.

2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.

3. Weigh the sample into the Q-Cup layering the sample on top of the sorbent. Gently mix the sample and sorbent mixture with a glass stir rod, ensuring that the Q-Disc is not damaged.

4. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle. Add 1:00 bubbling to Cycle 1 by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Q-Matrix Hydra™ (2.5 g) Sodium Citrate (0.25 g) Sodium Bicarbonate (0.25 g)	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight	Equipment	Q-Disc
≤ 10 g	EDGE 50 mL centrifuge tubes Q-Screen	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	3:00
2	0	0	10		:

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	10	40	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from Sodium Copper Chlorophyllin Powder

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.

2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
Sorbents			Solvents		
N/A			Acetonitrile w/ 1.0	0% Acetic Acid (v/v)	
Sample Weight		Equipmont			
		Equipment		Q-DISC	
≤ 1 g		EDGE 50 mL centrifuae tubes		51	
		Q-Screen			
Heating Program					
Cycle	Top Add (mL)	Bottom Add (ml.)	Pinco (ml.)	$T_{amp} (^{\circ}C)$	Hold (mm:ss)
		Dottom Add (me)		Temp (C)	11010 (11111.55)
1	15	0	10	40	3:00
1	15	0	10	40	3:00
1	15	0	10	40	3:00
1 Note: Temperature and	15 I hold times may vary	0 of depending on the sample and ana	10 Ilytes of interest.	40	3:00
1 Note: Temperature and Wash Program	15 I hold times may vary	0 depending on the sample and ana	10 Ilytes of interest.	40	3:00
1 Note: Temperature and Wash Program Cycle	15 I hold times may vary Solvent	0 depending on the sample and ana	10 Ilytes of interest. Volume (mL)	40 Temp (°C)	3:00 Hold (mm:ss)

General Guidelines

2

3

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

Acetonitrile w/ 1.0% Acetic Acid (v/v)

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

40

40

100

40

0:30

--:--

e) Bring to volume or evaporate as necessary for analysis.

Methanol

Extraction of Pesticides from **Strawberries**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup layering the sample on top of the sorbent. Mixing is not required.
- 4. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle. Add 2:00 bubbling to the method by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Q-Matrix Hydra™ (2.5 g)	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight		Equipment		Q-Disc	
≤ 10 g		EDGE 50 mL centrifuge tubes Q-Screen		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	15	0	5	40	4:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	10	40	0:03

10

--:--

General Guidelines

2

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

0

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

e) Bring to volume or evaporate as necessary for analysis.

0

Extraction of PFAS from Carrots

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup, layering the sample on top of the sorbent.

Notes

Add 2:00 bubbling to each cycle of the method by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Sodium Sulfate (6 g)	Methanol/Water (80:20) w/ 0.3% ammonium hydroxide (v/v)
Sodium Chloride (1.75 g)	Methanol

Sample Weight	Equipment	Q-Disc
5 g	50 mL centrifuge tubes	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	65	2:00
2	20	0	0	65	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol	30	65	0:30
2	Methanol	30	65	0:30
3	Methanol/Water (80:20) w/ 0.3% ammoniur	10	65	0:30

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of PFAS from **Cranberries**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup, layering the sample on top of the sorbent.

Notes

Add 2:00 bubbling to each cycle of the method by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Sodium Sulfate (6 g)	Methanol/Water (80:20) w/ 0.3% ammonium hydroxide (v/v)
Sodium Chloride (1.75 g)	Methanol

Sample Weight	Equipment	Q-Disc
5 g	50 mL centrifuge tubes	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	65	2:00
2	20	0	0	65	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol	30	65	0:30
2	Methanol	30	65	0:30
3	Methanol/Water (80:20) w/ 0.3% ammoniur	10	65	0:30

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of PFAS from Lettuce

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup layering the sample on top of the sorbetn.

Notes

Add 2:00 bubbling to each cycle of the method by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Sodium Sulfate (6 g)	Methanol/Water (80:20) w/ 0.3% ammonium hydroxide (v/v)
Sodium Chloride (1.75 g)	Methanol

Sample Weight	Equipment	Q-Disc
5 g	50 mL centrifuge tubes	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	65	2:00
2	20	0	0	65	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol	30	65	0:30
2	Methanol	30	65	0:30
3	Methanol/Water (80:20) w/ 0.3% ammoniur	10	65	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of PFAS from **Potatoes**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup, layering the sample on top of the sorbent.

Notes

Add 2:00 bubbling to each cycle of the method by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Sodium Sulfate (6 g)	Methanol/Water (80:20) w/ 0.3% ammonium hydroxide (v/v)
Sodium Chloride (1.75 g)	Methanol

Sample Weight	Equipment	Q-Disc
5 g	50 mL centrifuge tubes	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	65	2:00
2	20	0	0	65	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol	30	65	0:30
2	Methanol	30	65	0:30
3	Methanol/Water (80:20) w/ 0.3% ammoniur	10	65	0:30

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of PFAS from **Strawberries**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup, layering the sample on top of the sorbent.

Notes

Add 2:00 bubbling to each cycle of the method by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Sodium Sulfate (6 g)	Methanol/Water (80:20) w/ 0.3% ammonium hydroxide (v/v)
Sodium Chloride (1.75 g)	Methanol

Sample Weight	Equipment	Q-Disc
5 g	50 mL centrifuge tubes	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	65	2:00
2	20	0	0	65	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol	30	65	0:30
2	Methanol	30	65	0:30
3	Methanol/Water (80:20) w/ 0.3% ammoniur	10	65	0:30

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Polyphenols from Cacao

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
None					
Sorbents			Solvents		
N/A			Methanol/Water (1:1)	
Sample Weight		Equipment		Q-Disc	
≤ 0.5 g		EDGE Q-Screen 40 mL collection vials		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	10	10	80	10:00
Note: Temperature and	hold times may vary	depending on the sample and ar	nalytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol/Water	· (1:1)	15	80	0:15

General Guidelines

2

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

Methanol/Water (1:1)

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

15

--:--

Extraction of Solubles from **Tobacco**

Procedure

- 1. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
None					
Sorbents			Solvents		
N/A			Water		
Sample Weight		Equipment		Q-Disc	
5 g		EDGE 40 mL collection vials - clear Q-Screen		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	30			100	3:00
Note: Temperature and	hold times may vary d	epending on the sample and analy	rtes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)

General Guidelines

1

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

30

100

0:15

e) Bring to volume or evaporate as necessary for analysis.

Water

Cannabis

Extraction of Cannabinoids from Cannabis/Hemp Plant

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

Possessing, using, distributing, or selling marijuana or marijuana-based products constitute federal crimes in the United States, even where a state law decriminalizes or legalizes such activities. CEM Corporation produces instruments that are intended for use in testing laboratories and applications only where such use is permitted under applicable state/country law.

Sorbents	Solvents
N/A	Options: 2-Propanol (IPA) Methanol

Sample Weight	Equipment	Q-Disc
≤ 0.5 g	EDGE 50 mL centrifuge tubes Q-Screen	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	15	0	5	45	5:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	2-Propanol (IPA)	20	80	0:05
2	Methanol	10		;
Conorol Cuidalinas				

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from Cannabis Edibles

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

Possessing, using, distributing, or selling marijuana or marijuana-based products constitute federal crimes in the United States, even where a state law decriminalizes or legalizes such activities. CEM Corporation produces instruments that are intended for use in testing laboratories and applications only where such use is permitted under applicable state/country law.

Sorbents	Solvents
N/A	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight	Equipment	Q-Disc
0.3 g	EDGE 50 mL centrifuge tubes Q-Screen	S1
Heating Program		

Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	15	40	0:03
2	Acetonitrile w/ 1.0% Acetic Acid (v/v)	15		:

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from Cannabis/Hemp Plant

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

Possessing, using, distributing, or selling marijuana or marijuana-based products constitute federal crimes in the United States, even where a state law decriminalizes or legalizes such activities. CEM Corporation produces instruments that are intended for use in testing laboratories and applications only where such use is permitted under applicable state/country law.

Sorbents	Solvents
N/A	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight		Equipment		Q-D	isc	
≤ 1.5 g		EDGE 50 mL centrifuge tubes Q-Screen		S1		
Heating Program						
Cvcle	Top Add (mL)	Bottom Add (ml.)	Rinse (ml.)	Temp (°C)	Hold (mm:ss)	

Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Cycle Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1 Acetonit	trile w/ 1.0% Acetic Acid (v/v)	10	40	0:30

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Environmental & Regulatory
Extraction of Diesel and Oils from **Soil**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup layering the sample on top of the sorbent. Mixing is not required.
- 4. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
None					
Sorbents			Solvents		
Diatomaceous Earth	n (1 g)		Dichloromethane		
Sample Weight		Equipment		Q-Disc	
≤ 30 g		EDGE Q-Screen 60 mL collection vials		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	30	0	0	100	3:00
2	30	0	0	100	3:00
Note: Temperature and	d hold times may vary d	epending on the sample and a	nalytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Dichloromethane		30	120	0:15
2	Dichloromethane		30		:
General Guidelines	;				
a) This procedure is	a reference point for	sample extraction using a	CEM system and may r	need to be modified or ch	anged to obtain

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Dioxins From Soil, Loam, or Clay

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
None					
Sorbents			Solvents		
N/A			Options: Dichloromethane Methyl tert-butyl e Toluene	ether	
Sample Weight		Equipment		Q-Disc	
≤ 10 g		EDGE Q-Screen 60 mL collection vials		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	150	1:00
2	20	0	0	150	1:00
3	20	0	0	150	1:00
Note: Temperature ar	nd hold times may vary d	epending on the sample and a	nalytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Extraction Solver	nt	30	120	0:15
2	Extraction Solver	nt	30		:
General Guideline	S				
a) This procedure i required results on	s a reference point for your sample or analy	sample extraction using a (CEM system and may	need to be modified or ch	nanged to obtain

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Organic Compounds from Soils, Clays, Sediments, Sludges, and Waste Solids (EPA 3545A)

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place

- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Add 2 g of Florisil on top of each sample. 4. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes			
None			

Sorbents	Solvents
Florisil	Options: Hexane/Acetone (1:1) Dichloromethane Dichloromethane/Acetone (1:1)

Sample Weight	Equipment	Q-Disc
≤ 30 g	EDGE Q-Screen 60 mL collection vials	S1

Heating Program	ı				
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	15	0	0	70	0:30
2	15	0	0	70	0:30
3	15	0	0	100	0:30
4	15	0	0	100	0:30

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Extraction Solvent	30	120	0:30
2	Extraction Solvent	30		:

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of PAHs from Soil, Loam, or Clay

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place

- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Add 2 g of Florisil on top of each sample.
- 4. Insert a Q-Screen into the Q-Cup using the Q-Screen tool without disturbing the Florisil layer.

Notes

If the sample is wet, add sodium sulfate to the sample before adding to the Q-Cup.

Sorbents	Solvents
Florisil	Options: Hexane/Acetone (1:1) Dichloromethane

Dichloromethane/Acetone (1:1)

Sample Weight	Equipment	Q-Disc
≤ 30 g	EDGE Q-Screen 60 mL collection vials	S1

Heating Program Cycle Top Add (mL) Bottom Add (mL) Rinse (mL) Temp (°C) Hold (mm:ss) 0:30 1 0 0 70 15 2 15 0 0 70 0:30 3 15 0 0 100 0:30 4 0 0 100 0:30 15

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Extraction Solvent	30	120	0:30
2	Extraction Solvent	30		:

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of PCBs from Soil, Loam or Clay

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
Sorbents			Solvents		
N/A			Options:	(1.1)	
			Dichloromethane	(1.1)	
Sample Weight		Equipment			
≤ 30 g		EDGE		S1	
3		Q-Screen			
Heating Program	I				
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	30	0	0	100	3:00
2	30	0	0	100	3:00
Note: Temperature a	and hold times may vary d	epending on the sample and a	nalytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Dichloromethane		30	120	0:15
2	Extraction Solver	nt	30		:
General Guidelin	les				
a) This procedure required results or b) Wear hand, eve	is a reference point for n your sample or analyt e, and body protection y	sample extraction using a es of interest. vhen handling organic solv	CEM system and may ents.	need to be modified or c	hanged to obtain

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of PFAS from Carrots

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup, layering the sample on top of the sorbent.

Notes

Add 2:00 bubbling to each cycle of the method by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Sodium Sulfate (6 g)	Methanol/Water (80:20) w/ 0.3% ammonium hydroxide (v/v)
Sodium Chloride (1.75 g)	Methanol

Sample Weight	Equipment	Q-Disc
5 g	50 mL centrifuge tubes	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	65	2:00
2	20	0	0	65	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol	30	65	0:30
2	Methanol	30	65	0:30
3	Methanol/Water (80:20) w/ 0.3% ammoniur	10	65	0:30

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of PFAS from **Cranberries**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup, layering the sample on top of the sorbent.

Notes

Add 2:00 bubbling to each cycle of the method by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Sodium Sulfate (6 g)	Methanol/Water (80:20) w/ 0.3% ammonium hydroxide (v/v)
Sodium Chloride (1.75 g)	Methanol

Sample Weight	Equipment	Q-Disc
5 g	50 mL centrifuge tubes	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	65	2:00
2	20	0	0	65	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol	30	65	0:30
2	Methanol	30	65	0:30
3	Methanol/Water (80:20) w/ 0.3% ammoniur	10	65	0:30

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of PFAS from Lettuce

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup layering the sample on top of the sorbetn.

Notes

Add 2:00 bubbling to each cycle of the method by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Sodium Sulfate (6 g)	Methanol/Water (80:20) w/ 0.3% ammonium hydroxide (v/v)
Sodium Chloride (1.75 g)	Methanol

Sample Weight	Equipment	Q-Disc
5 g	50 mL centrifuge tubes	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	65	2:00
2	20	0	0	65	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol	30	65	0:30
2	Methanol	30	65	0:30
3	Methanol/Water (80:20) w/ 0.3% ammoniur	10	65	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of PFAS from **Potatoes**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup, layering the sample on top of the sorbent.

Notes

Add 2:00 bubbling to each cycle of the method by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Sodium Sulfate (6 g)	Methanol/Water (80:20) w/ 0.3% ammonium hydroxide (v/v)
Sodium Chloride (1.75 g)	Methanol

Sample Weight	Equipment	Q-Disc
5 g	50 mL centrifuge tubes	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	65	2:00
2	20	0	0	65	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol	30	65	0:30
2	Methanol	30	65	0:30
3	Methanol/Water (80:20) w/ 0.3% ammoniur	10	65	0:30

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of PFAS from **Soil**

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup and assemble the Q-Cup. 2. Weigh the sample into the Q-Cup.

Notes					
None					
Sorbents			Solvents		
N/A			Methanol/Water (80:20) w/ 0.3% ammoniur	n hydroxide (v/v)
			Methanor		
Sample Weight		Equipment		O Disc	
				Q-DISC	
зy		PFAS EDGE		51	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	10	0	0	65	3:00
2	10	0	0	65	4:00
Note: Temperature and	I hold times may vary	depending on the sample and ana	lytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol		10	50	0:03
2	Methanol:Wate	r (80:20) w/ 0.3% ammoniur	10		:
General Guidelines	;				
a) This procedure is	a reference point for	or sample extraction using a CI	EM system and may	need to be modified or ch	anged to obtain

required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of PFAS from **Strawberries**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup, layering the sample on top of the sorbent.

Notes

Add 2:00 bubbling to each cycle of the method by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Sodium Sulfate (6 g)	Methanol/Water (80:20) w/ 0.3% ammonium hydroxide (v/v)
Sodium Chloride (1.75 g)	Methanol

Sample Weight	Equipment	Q-Disc
5 g	50 mL centrifuge tubes	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	65	2:00
2	20	0	0	65	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol	30	65	0:30
2	Methanol	30	65	0:30
3	Methanol/Water (80:20) w/ 0.3% ammoniur	10	65	0:30

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Food Testing

Extraction of Cannabinoids from Cannabis/Hemp Plant

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

Possessing, using, distributing, or selling marijuana or marijuana-based products constitute federal crimes in the United States, even where a state law decriminalizes or legalizes such activities. CEM Corporation produces instruments that are intended for use in testing laboratories and applications only where such use is permitted under applicable state/country law.

Sorbents	Solvents
N/A	Options: 2-Propanol (IPA) Methanol

Sample Weight	Equipment	Q-Disc
≤ 0.5 g	EDGE 50 mL centrifuge tubes Q-Screen	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	15	0	5	45	5:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	2-Propanol (IPA)	20	80	0:05
2	Methanol	10		:
Conorol Cuidalinas				

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Dioxins from Feeds/Foods (Wet)

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
None					
Sorbents			Solvents		
N/A			Options: Dichloromethane Methyl tert-butyl ether Toluene		
Sample Weight		Equipment		Q-Disc	
≤ 5 g		EDGE Q-Screen 60 mL collection vials		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	150	1:00
2	20	0	0	150	1:00
3	20	0	0	150	1:00
Note: Temperature and	hold times may vary d	epending on the sample and anal	ytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Extraction Solve	nt	30	150	0:30
2	Extraction Solve	nt	30		:
General Guidelines					
a) This procedure is a	reference point for	comple extraction using a CE	M system and may need	to be modified or char	and to obtain

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Fat from **Baking Products**

Procedure

- 1. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

Sample types: DATEM powder, chocolate product, Nutella, coconut flour, and bread This is not an exhaustive list of possible sample types

Sorbents	Solvents
N/A	Petroleum Ether

Sample Weight	Equipment	Q-Disc
≤2 g	EDGE Q-Screen 60 mL collection vials	S1

Heating Program	I				
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	30	0	0	140	5:00
2	30	0	0	140	5:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Petroleum Ether	30	30	0:15

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Fat from Nut Products

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc, is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

Sample Types: peanut butter, hazelnut paste brazil nuts, cashews, hazelnuts, peanuts, and pumpkin seeds This is not an exhaustive list of possible sample types

Sorbents	Solvents
N/A	Petroleum Ether

Sample Weight	Equipment	Q-Disc
≤3 g	EDGE Q-Screen 60 mL collection vials	S1

Heating Program	ı				
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	30	0	0	140	5:00
2	30	0	0	140	5:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Petroleum Ether	30	30	0:15

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Oil from Coffee Grinds

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
None					
Sorbents			Solvents		
N/A			Petroleum Ether		
Sample Weight		Equipment		O-Disc	
< 6 a		EDGE		S1	
- 0 9		Q-Screen			
		40 mL collection vials			
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	140	5:00
2	20	0	0	140	5:00
Note: Temperature and	d hold times may vary o	lepending on the sample and ar	alytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Petroleum Ether		20	100	0:10
General Guidelines					
a) This procedure is	a reference point for	r sample extraction using a C	CEM system and may	need to be modified or ch	anged to obtain
b) Wear hand, eye, a	and body protection	when handling organic solve	nts.		
c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.					

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of PAHs from **Yerba Mate**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
None					
Sorbents			Solvents		
N/A			Options: Acetone Dichloromethane Hexane/Acetone (1:	1)	
Sample Weight		Equipment		Q-Disc	
≤ 0.5 g		EDGE Q-Screen 40 mL collection vials		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	10	120	1:00
Note: Temperature and h	old times may vary o	depending on the sample and ana	lytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Extraction Solve	ent	15	120	0:30
2	Extraction Solve	nt	15		:
General Guidelines					

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from Avocados

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.

2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.

3. Weigh the sample into the Q-Cup layering the sample on top of the sorbent. Gently mix the sample and sorbent mixture with a glass stir rod, ensuring that the Q-Disc is not damaged.

4. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle. Add 1:00 bubbling to Cycle 1 by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Q-Matrix Hydra™ (2.5 g) Sodium Citrate (0.25 g) Sodium Bicarbonate (0.25 g)	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight	Equipment	Q-Disc
≤ 10 g	EDGE 50 mL centrifuge tubes Q-Screen	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	3:00
2	0	0	10		:

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	10	40	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from **Bixin Powder**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
Sorbents			Solvents		
			Acetonitrile w/ 1.0 Methanol)% Acetic Acid (\	//v)
Sample Weight		Equipment		Q	-Disc
≤ 1 g		EDGE 50 mL centrifuge tubes Q-Screen		S	1
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C	:) Hold (mm:ss)
1	15	0	10	40	3:00
Note: Temperature and	I hold times may vary c	epending on the sample and ana	lytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C	:) Hold (mm:ss)
1	Methanol		40	120	0:30
2	Methanol		40	100	0:30
3	Acetonitrile w/ 1.	0% Acetic Acid (v/v)	40	40	:
General Guidelines	•				
a) This procedure is	a reference point for	sample extraction using a Cl	EM system and may	need to be modi	fied or changed to obtain

required results on your sample or analytes of interest. b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from **Black Pepper**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle.

Sorbents	Solvents
PSA (150 mg)	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight		Equipment		Q-Disc	
≤ 2 g		EDGE 50 mL centrifuge tubes Q-Screen		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	15	0	0	40	3:00
2	0	0	5		:

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	15	40	0:03
General Guidelines				

Extraction of Pesticides from **Black Tea**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle.

Sorbents	Solvents
N/A	Acetonitrile

Sample Weight	Equipment	Q-Disc
2 g	EDGE 50 mL centrifuge tubes Q-Screen	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	10	0	0	40	1:30
2	0	0	5		;

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile	10	40	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from **Blueberries**

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.

2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.

3. Weigh the sample into the Q-Cup layering the sample on top of the sorbent. Gently mix the sample and sorbent mixture with a glass stir rod, ensuring that the Q-Disc is not damaged.

4. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle. Add 1:00 bubbling to Cycle 1 by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Q-Matrix Hydra™ (2.5 g) PSA (0.5 g)	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight	Equipment	Q-Disc
≤ 10 g	EDGE 50 mL centrifuge tubes Q-Screen	S1

Heating Program	I				
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	3:00
2	0	0	10		:

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	10	40	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from Cannabis Edibles

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

Possessing, using, distributing, or selling marijuana or marijuana-based products constitute federal crimes in the United States, even where a state law decriminalizes or legalizes such activities. CEM Corporation produces instruments that are intended for use in testing laboratories and applications only where such use is permitted under applicable state/country law.

Sorbents	Solvents
N/A	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight	Equipment	Q-Disc
0.3 g	EDGE 50 mL centrifuge tubes Q-Screen	S1
Heating Program		

Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	15	40	0:03
2	Acetonitrile w/ 1.0% Acetic Acid (v/v)	15		:

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from Cannabis/Hemp Plant

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

Possessing, using, distributing, or selling marijuana or marijuana-based products constitute federal crimes in the United States, even where a state law decriminalizes or legalizes such activities. CEM Corporation produces instruments that are intended for use in testing laboratories and applications only where such use is permitted under applicable state/country law.

Sorbents	Solvents
N/A	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight		Equipment		Q-Dise	2	
≤ 1.5 g		EDGE 50 mL centrifuge tubes Q-Screen		S1		
Heating Program						
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)	

5

40

2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	10	40	0:30

General Guidelines

1

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

0

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

e) Bring to volume or evaporate as necessary for analysis.

25

Extraction of Pesticides from **Cinnamon**

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.

2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle.

Sorbents	Solvents
N/A	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight	Equipment	Q-Disc
≤ 2 g	EDGE 50 mL centrifuge tubes Q-Screen	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	3:00
3	0	0	5		:

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	10	40	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from **Cranberries**

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.

2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.

3. Weigh the sample into the Q-Cup layering the sample on top of the sorbent. Gently mix the sample and sorbent mixture with a glass stir rod, ensuring that the Q-Disc is not damaged.

4. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle. Add 1:00 bubbling to Cycle 1 by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Q-Matrix Hydra™ (2.5 g) PSA (0.5 g)	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight	Equipment	Q-Disc
≤ 10 g	EDGE 50 mL centrifuge tubes Q-Screen	S1

Heating Program	I				
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	3:00
2	0	0	10		:

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	10	40	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from **Curcumin**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
Sorbents			Solvents		
N/A			Acetonitrile w/ 1.0 Methanol	% Acetic Acid (v/v)	
Sample Weight		Equipment		Q-Di	sc
≤1g		EDGE 50 mL centrifuge tubes Q-Screen		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	15	0	10	40	3:00
Note: Temperature and h	old times may vary de	epending on the sample and ana	alytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol		40	120	0:30
2	Methanol		40	100	0:30
3	Acetonitrile w/ 1.0	% Acetic Acid (v/v)	40	40	:
General Guidelines					

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from Foods (Wet)

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup layering the sample on top of the sorbent. Mixing is not required.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle. Add 2:00 bubbling to Cycle 1 by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Q-Matrix Hydra™ (2.5 g)	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight		Equipment		Q-Disc	
≤ 5 g		EDGE 50 mL centrifuge tubes Q-Screen		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	1:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	10	40	0:03

10

--:--

General Guidelines

2

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

0

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

e) Bring to volume or evaporate as necessary for analysis.

0

Extraction of Pesticides from **Norbixin**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
Sorbents			Solvente		
oonbenta			Acetonitrile w/ 1.0)% Acetic Acid (v/v)	
			Acetone		
Sample Weight		Equipment		Q-Disc	
≤ 1 g		EDGE 50 mL centrifuge tubes Q-Screen		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	15	0	10	40	3:00
Note: Temperature and	hold times may vary	depending on the sample and anal	ytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetone		40	120	0:30
2	Acetone		40	100	0:30
3	Acetonitrile w/ 2	1.0% Acetic Acid (v/v)	40	40	:
General Guidelines					
a) This procedure is a required results on yo	reference point four sample or anal	or sample extraction using a CE ytes of interest.	M system and may	need to be modified or ch	anged to obtain

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from **Oregano**

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.

2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle.

Sorbents	Solvents
N/A	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight	Equipment	Q-Disc
≤ 2 g	EDGE 50 mL centrifuge tubes Q-Screen	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	3:00
2	0	0	5		:

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	10	40	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from **Paprika**

2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Procedure

Notes The second cycle in the heating program is a "Rinse Only" cycle. Sorbents Solvents N/A Acetonitrile w/ 1.0% Acetic Acid (v/v) **Sample Weight** Equipment Q-Disc ≤ 2 g S1 **Heating Program** Cycle Top Add (mL) Bottom Add (mL) Rinse (mL) Temp (°C) Hold (mm:ss) 1 0 0 40 3:00 15 2 0 0 5 --:--____ Note: Temperature and hold times may vary depending on the sample and analytes of interest. Wash Program Hold (mm:ss) Cycle Solvent Volume (mL) Temp (°C) 1 Acetonitrile w/ 1.0% Acetic Acid (v/v) 15 40 0:003 **General Guidelines**

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place

entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.

Extraction of Pesticides from **Rice**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
None					
Sorbents			Solvents		
N/A			Acetonitrile w/ 1.	0% Acetic Acid (v/v)	
Sample Weight		Equipment		Q-Disc	
≤ 2 g		EDGE 50 mL centrifuge tubes Q-Screen		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	3:00
Note: Temperature and	d hold times may vary	depending on the sample and and	alytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1	.0% Acetic Acid (v/v)	10	40	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from **Salmon**

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.

2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.

3. Weigh the sample into the Q-Cup layering the sample on top of the sorbent. Gently mix the sample and sorbent mixture with a glass stir rod, ensuring that the Q-Disc is not damaged.

4. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle. Add 1:00 bubbling to Cycle 1 by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Q-Matrix Hydra™ (2.5 g) Sodium Citrate (0.25 g) Sodium Bicarbonate (0.25 g)	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight	Equipment	Q-Disc
≤ 10 g	EDGE 50 mL centrifuge tubes Q-Screen	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	25	0	5	40	3:00
2	0	0	10		:

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	10	40	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Pesticides from Sodium Copper Chlorophyllin Powder

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.

2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
Sorbents			Solvents		
N/A			Acetonitrile w/ 1.	0% Acetic Acid (v/v)	
Sample Weight		Equipment		Q-Disc	
≤ 1 g		EDGE		S1	
		Q-Screen			
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	15	0	10	40	3:00
Note: Temperature a	nd hold times may vary	depending on the sample and ana	lytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol		40	120	0.30

2	Methanol	40	100	
3	Acetonitrile w/ 1.0% Acetic Acid (v/v)	40	40	
Gonoral Guidolinos				

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

0:30

--:--

Extraction of Pesticides from **Strawberries**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup layering the sample on top of the sorbent. Mixing is not required.
- 4. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

The second cycle in the heating program is a "Rinse Only" cycle. Add 2:00 bubbling to the method by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Q-Matrix Hydra™ (2.5 g)	Acetonitrile w/ 1.0% Acetic Acid (v/v)

Sample Weight		Equipment		Q-Disc	
≤ 10 g		EDGE 50 mL centrifuge tubes Q-Screen		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)

Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	15	0	5	40	4:00
2	0	0	10		:

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program								
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)				
1	Acetonitrile w/ 1.0% Acetic Acid (v/v)	10	40	0:03				

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.
Extraction of PFAS from Carrots

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup, layering the sample on top of the sorbent.

Notes

Add 2:00 bubbling to each cycle of the method by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Sodium Sulfate (6 g)	Methanol/Water (80:20) w/ 0.3% ammonium hydroxide (v/v)
Sodium Chloride (1.75 g)	Methanol

Sample Weight	Equipment	Q-Disc
5 g	50 mL centrifuge tubes	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	65	2:00
2	20	0	0	65	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol	30	65	0:30
2	Methanol	30	65	0:30
3	Methanol/Water (80:20) w/ 0.3% ammoniur	10	65	0:30

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of PFAS from **Cranberries**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup, layering the sample on top of the sorbent.

Notes

Add 2:00 bubbling to each cycle of the method by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Sodium Sulfate (6 g)	Methanol/Water (80:20) w/ 0.3% ammonium hydroxide (v/v)
Sodium Chloride (1.75 g)	Methanol

Sample Weight	Equipment	Q-Disc
5 g	50 mL centrifuge tubes	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	65	2:00
2	20	0	0	65	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol	30	65	0:30
2	Methanol	30	65	0:30
3	Methanol/Water (80:20) w/ 0.3% ammoniur	10	65	0:30

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of PFAS from Lettuce

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup layering the sample on top of the sorbetn.

Notes

Add 2:00 bubbling to each cycle of the method by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Sodium Sulfate (6 g)	Methanol/Water (80:20) w/ 0.3% ammonium hydroxide (v/v)
Sodium Chloride (1.75 g)	Methanol

Sample Weight	Equipment	Q-Disc
5 g	50 mL centrifuge tubes	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	65	2:00
2	20	0	0	65	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol	30	65	0:30
2	Methanol	30	65	0:30
3	Methanol/Water (80:20) w/ 0.3% ammoniur	10	65	0:03

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of PFAS from **Potatoes**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup, layering the sample on top of the sorbent.

Notes

Add 2:00 bubbling to each cycle of the method by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Sodium Sulfate (6 g)	Methanol/Water (80:20) w/ 0.3% ammonium hydroxide (v/v)
Sodium Chloride (1.75 g)	Methanol

Sample Weight	Equipment	Q-Disc
5 g	50 mL centrifuge tubes	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	65	2:00
2	20	0	0	65	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol	30	65	0:30
2	Methanol	30	65	0:30
3	Methanol/Water (80:20) w/ 0.3% ammoniur	10	65	0:30

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of PFAS from **Strawberries**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup, layering the sample on top of the sorbent.

Notes

Add 2:00 bubbling to each cycle of the method by selecting the pencil icon in the Cycles tab.

Sorbents	Solvents
Sodium Sulfate (6 g)	Methanol/Water (80:20) w/ 0.3% ammonium hydroxide (v/v)
Sodium Chloride (1.75 g)	Methanol

Sample Weight	Equipment	Q-Disc
5 g	50 mL centrifuge tubes	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	0	0	65	2:00
2	20	0	0	65	2:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol	30	65	0:30
2	Methanol	30	65	0:30
3	Methanol/Water (80:20) w/ 0.3% ammoniur	10	65	0:30

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Polyphenols from Cacao

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
None					
Sorbents			Solvents		
N/A			Methanol/Water (1:1)	
Sample Weight		Equipment		Q-Disc	
≤ 0.5 g		EDGE Q-Screen 40 mL collection vials		S1	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	10	10	80	10:00
Note: Temperature and	d hold times may vary o	depending on the sample and a	nalytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Methanol/Water	(1:1)	15	80	0:15

General Guidelines

2

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

Methanol/Water (1:1)

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

15

--:--

Hydrolysis & Extraction of Fat from **Baking Products**

Procedure

Step 1- Hydrolysis Method

For hydrolysis method , see "The Extraction of Fat from Low, Middle, and High Fat Foods" Application Note

Step 2 - EDGE Method

1. G0 refers to a G1 Q-Disc with a Q-Support. Place a G1 Q-Disc into the bottom of the Q-Cup. Place a Q-Support on top of the G1 Q-Disc and assemble the Q-Cup.

2. Place the filter with the hydrolyzed sample in the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

If not performing hydrolysis, proceed to EDGE Method

Sample Types: DATEM powder, chocolate product, Nutella, coconut flour, bread, and raw eggs This is not an exhaustive list of possible sample types.

 Sorbents
 Solvents

 N/A
 Petroleum Ether

Sample Weight		Equipment		Q-Disc	
≤3 g		EDGE Q-Screen 60 mL collection vials Q-Support		G0	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	30	0	0	140	5:00
2	30	0	0	140	5:00
Note: Temperature an	d hold times may vary	depending on the sample and and	alytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)

30

30

0:15

Gonoral	Guidalinas	

1

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

Petroleum Ether

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Hydrolysis & Extraction of Fat from **Nut Products**

Procedure

Step 1- Hydrolysis Method

For hydrolysis method, see "The Extraction of Fat from Low, Middle, and High Fat Foods" Application Note

Step 2 - EDGE Method

1. G0 refers to a G1 Q-Disc with a Q-Support. Place a G1 Q-Disc into the bottom of the Q-Cup. Place a Q-Support on top of the G1 Q-Disc and assemble the Q-Cup.

2. Place the filter with hydrolyzed sample in the Q-Cup.

3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

If not performing hydrolysis, proceed to EDGE Method

Sample types: peanut butter, hazelnut paste, brazil nuts, cashews, hazelnuts, peanuts, and pumpkin seeds This is not an exhaustive list of bossible sample types

Sorbents	Solvents
N/A	Petroleum Ether

Sample Weight		Equipment		Q-Disc	
≤2 g		EDGE Q-Screen 60 mL collection vials Q-Support		G0	
Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	30	0	0	140	5:00
2	30	0	0	140	5:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Petroleum Ether	30	30	0:15

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Materials Science

Extraction of Additives from **Polyethylene Powder**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

*Plastics and polymers should only be extracted at temperatures below melting point range. Expansion of the sample during extraction is common during polymer-based extractions.

Sorbents	Solvents
N/A	2-Propanol (IPA)

Sample Weight	Equipment	Q-Disc
≤ 1 g	EDGE 40 mL collection vials - amber Q-Screen	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	30	10	0	90*	15:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	2-Propanol (IPA)	15	90	0:15
2	2-Propanol (IPA)	15		:

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Additives from **Polypropylene Powder**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

*Plastics and polymers should only be extracted at temperatures below melting point range. Expansion of the sample during extraction is common during polymer based extraction.

Sorbents	Solvents
N/A	2-Propanol (IPA)

Sample Weight	Equipment	Q-Disc
≤ 1 g	EDGE 40 mL collection vials - amber Q-Screen	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	30	10	0	120*	15:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	2-Propanol (IPA)	15	150	0:15
2	2-Propanol (IPA)	15		:

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Film Powder

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place

- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup. If the sample is in sheet form, cut into small pieces (the smaller, the better).
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

*Plastics and polymers should only be extracted at temperatures below melting point range. Expansion of the sample during extraction is common during polymer based extraction.

 Sorbents
 Solvents

 N/A
 2-Propanol (IPA)

Sample Weight	Equipment	Q-Disc
≤ 2 g	EDGE Q-Screen 60 mL collection vials	S1

Heating Program	ı				
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	15	5	0	120	10:00
2	10	5	0	120	10:00
3	15	5	0	120	10:00
4	10	5	0	120	10:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program

Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	2-Propanol (IPA)	15	100	0:10
2	2-Propanol (IPA)	15		:

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Phthalates from **Polyvinyl Chloride**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

*Plastics and polymers should only be extracted at temperatures below melting point range. Expansion of the sample during extraction is common during polymer-based extractions.

Sorbents	Solvents
N/A	2-propanol (IPA)/Cyclohexane (1:1)

Sample Weight	Equipment	Q-Disc
≤ 1 g	EDGE Q-Screen 40 mL collection vials	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	10	0	80*	10:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	2-propanol (IPA)/Cyclohexane (1:1)	10	80	0:15
2	2-propanol (IPA)/Cyclohexane (1:1)	10		:
Consul Cuidalines				

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Plastics, Polymers, & Oils

Extraction of Additives from **Polyethylene Powder**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

*Plastics and polymers should only be extracted at temperatures below melting point range. Expansion of the sample during extraction is common during polymer-based extractions.

Sorbents	Solvents
N/A	2-Propanol (IPA)

Sample Weight	Equipment	Q-Disc
≤ 1 g	EDGE 40 mL collection vials - amber Q-Screen	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	30	10	0	90*	15:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	2-Propanol (IPA)	15	90	0:15
2	2-Propanol (IPA)	15		:

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Additives from **Polypropylene Powder**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

*Plastics and polymers should only be extracted at temperatures below melting point range. Expansion of the sample during extraction is common during polymer based extraction.

Sorbents	Solvents
N/A	2-Propanol (IPA)

Sample Weight	Equipment	Q-Disc
≤ 1 g	EDGE 40 mL collection vials - amber Q-Screen	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	30	10	0	120*	15:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	2-Propanol (IPA)	15	150	0:15
2	2-Propanol (IPA)	15		:

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Chemical Modifier from **Polyethylene Resin**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

*Plastics and polymers should only be extracted at temperatures below melting point range. Expansion of the sample during extraction is common during polymer-based extractions.

Sorbents	Solvents
N/A	Hexane/Acetone (2:3)

Sample Weight	Equipment	Q-Disc
≤ 0.5 g	EDGE Q-Screen 40 mL collection vials	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	10	10	60*	15:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Hexane/Acetone (2:3)	10	60	0:15
2	Hexane/Acetone (2:3)	10		:

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Diesel and Oils from **Soil**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place
- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sorbents into the Q-Cup. Spread evenly across the sample by gentle tapping.
- 3. Weigh the sample into the Q-Cup layering the sample on top of the sorbent. Mixing is not required.
- 4. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes					
None					
Sorbents			Solvents		
Diatomaceous Earth (1 g) Dichloromethane					
Sample Weight		Equipment		Q-Disc	
≤ 30 g		EDGE Q-Screen 60 mL collection vials		S1	
Heating Program	I				
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	30	0	0	100	3:00
2	30	0	0	100	3:00
Note: Temperature a	and hold times may vary d	epending on the sample and a	analytes of interest.		
Wash Program					
Cycle	Solvent		Volume (mL)	Temp (°C)	Hold (mm:ss)
1	Dichloromethane		30	120	0:15
2	Dichloromethane		30		:
General Guidelin	es				
a) This procedure	is a reference point for	sample extraction using a	CEM system and may r	need to be modified or ch	anged to obtain

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Film Powder

Procedure

1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place

- entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup. If the sample is in sheet form, cut into small pieces (the smaller, the better).
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

*Plastics and polymers should only be extracted at temperatures below melting point range. Expansion of the sample during extraction is common during polymer based extraction.

 Sorbents
 Solvents

 N/A
 2-Propanol (IPA)

Sample Weight	Equipment	Q-Disc
≤ 2 g	EDGE Q-Screen 60 mL collection vials	S1

Heating Program	1				
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	15	5	0	120	10:00
2	10	5	0	120	10:00
3	15	5	0	120	10:00
4	10	5	0	120	10:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program

CycleSolventVolume (mL)Temp (°C)Hold (mm:ss)12-Propagol (IPA)151000:10	riaen regian				
1 2-Propagol (IPA) 15 100 0.10	Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
	1	2-Propanol (IPA)	15	100	0:10
2 2-Propanol (IPA) 15	2	2-Propanol (IPA)	15		:

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.

Extraction of Phthalates from **Polyvinyl Chloride**

Procedure

- 1. Homogenize, mill, or cryomill the sample. The S1 Q-Disc is a preassembled sandwich of the G1 Q-Disc between two C9 Q-Discs. Place entire sandwich, excluding the blue separator, into the bottom of the Q-Cup, and assemble the Q-Cup.
- 2. Weigh the sample into the Q-Cup.
- 3. Insert a Q-Screen into the Q-Cup using the Q-Screen tool.

Notes

*Plastics and polymers should only be extracted at temperatures below melting point range. Expansion of the sample during extraction is common during polymer-based extractions.

Sorbents	Solvents
N/A	2-propanol (IPA)/Cyclohexane (1:1)

Sample Weight	Equipment	Q-Disc
≤ 1 g	EDGE Q-Screen 40 mL collection vials	S1

Heating Program					
Cycle	Top Add (mL)	Bottom Add (mL)	Rinse (mL)	Temp (°C)	Hold (mm:ss)
1	20	10	0	80*	10:00

Note: Temperature and hold times may vary depending on the sample and analytes of interest.

Wash Program				
Cycle	Solvent	Volume (mL)	Temp (°C)	Hold (mm:ss)
1	2-propanol (IPA)/Cyclohexane (1:1)	10	80	0:15
2	2-propanol (IPA)/Cyclohexane (1:1)	10		;
Conserved Could alline a				

General Guidelines

a) This procedure is a reference point for sample extraction using a CEM system and may need to be modified or changed to obtain required results on your sample or analytes of interest.

b) Wear hand, eye, and body protection when handling organic solvents.

c) Any of CEM's collection vials/centrifuge tubes in the correct size for the rack owned may be used.

d) Verify needed solvents are loaded onto the system with sufficient volume. Load the rack containing sample(s) into the EDGE. Select the method and position to load method. Press play and add any any sample ID's, etc. as needed.