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Table S1 Analytical techniques and their findings in various research done in various areas

Area	Extraction & Cleanup	Determination	POPs detected	Ref.
Santiago de Compostela (north-western Spain)	**Extraction** - PLE after the addition of surrogate standards. **Clean up** - dual layer EZ-POP SPE cartridge	GC-QqQ-MS	PYRs, PAHs, OPPs, OCPs, NDLPCBs, DLPCBs, PBDEs	(19)
Canada	**Extraction** - 300 mL acetone: hexane (2:1) Homogenization - Polytron. Lipid content - gravimetrically **Clean up** – diluted (1:1) dichloromethane: cyclohexane ; filtered - 0.45µm polytetrafluorethylene Cleaned up - gel permeation chromatography (S-X3 bio beads;200–400 mesh) **Mobile phase** - dichloromethane: cyclohexane (1:1, v/v) **Flow rate** - 5 mL min^{-1}	GC coupled to a MicroMass AutoSpec magnetic sector mass spectrometer- Agilent 6890 **Column** - 30 m DB5 column (0.25 mm x 0.25 µm) coupled (3 m; 0.53 mm retention gap) **Temperature-** Initial - 80 ºC; (2 min); increase 8 ºC min^{-1}; 240 ºC; final increase - 15 ºC min^{-1}; 280ºC (5 min). **Head pressure** - 28 kPa to 173 kPa **Carrier gas** - Helium. MS- EI positive mode (50 Ev) Source temperature - 250 ºC Trap current – 650 µA	Mirex	(20)
Canada	**Extraction** - Acetone: Hexane (2:1, v/v) **Homogenize** - Omni Tissue Homogenizer (1min) **Centrifuge** - Eppendorf centrifuge 5810R (10 min) **Clean up** - Gel permeation chromatography S-X3 bio beads (200–400 mesh) **Mobile phase** - 1:1 dichloromethane: hexane (v/v) **Flow rate** - 5 mL min^{-1}	GC coupled to a Waters AutoSpec Premier high-resolution mass spectrometer (Agilent 7890A) **Column** - 15 m DB-5MS (0.25 mm x 0.10 µm) coupled (5 m, 0.53 mm; deactivated fused silica retention gap) **Oven temperature** – initially - 80 ºC (2 min); increase – 170 ºC; 20 ºC min^{-1} (5.5 min); final increase - 320 ºC; 25 ºC min^{-1} (10 min) **Carrier gas** - Helium (1.2 mL min^{-1}) **MS - EI** positive ion mode (36eV) **Trap current** - 600 µA **Source temperature** – 250 ºC	DDC-CO	(20)

Area	Extraction & Cleanup	Determination	POPs detected	Ref.
Lebanon	**Extraction -** Liquid-liquid extraction; Hexane-Dichloromethane (5:1, v/v) **Homogenize** – manually (1min) **Purify** - two steps (1) passing the extract over an Al2O3 glass column with glass frit (22 cm by 20 mm inside diameter) The extract was eluted with Pentane, **Evaporated** - rotatory Evaporator **(2)** Fractionation 1.5% (w/w) deactivated silica glass column (15cm by 11 mm inside diameter)	HRGC **Detector** - 63Ni electron capture detector **Capillary column** - DB-608 (30 m by 0.32 mm inside diameter, 0.5 μm film thickness) **GC– MS** **Capillary column** SLB-5ms P/N 28471-U (30 m by 0.25 mm inside diameter, 0.25 μm film thickness) **Injector temperature** – 250^0C **Purge flow** - 2 mL min^{-1} (2min) **Carrier gas** - Helium **Flow rate** - 1 mL min^{-1} **Make-up gas** - Nitrogen	DDE	(21)
Jinhua, China	**QuEChERS extraction** modified from (13)	**GC-EI/ GC-SIM**(Agilent 7890A/5975C-GC/MSD) **Column** - DB- 17-MS capillary column- (30 m × 0.25 mm × 0.25 μm) **Carrier gas** - Helium (99.999%) (constant flow rate 1.0 mL min^{-1}) **Temperature program** - initial (70 °C; 2 min); Increased – (25 °C min^{-1} , 150 °C) ; Immediately increased - (200 °C; 3 °C min-1) Finally increased– (8 °C min^{-1}; 290 °C; 6 min.	*p,p'*-DDE, β-HCH and HCB	(22) (13)

Area	Extraction & Cleanup	Determination	POPs detected	Ref.
Poland	**Extraction** - Manual; n-hexane/diethyl ether mixture (1:1) **Clean up** - automated multi-column system PowerPrep (four-channel system- High Capacity Disposable Silica Column, Multilayer Silica Column, Alumina Column, and Carbon Column **Elution solvents**: n-hexane, dichloromethane, and toluene (1:1; 2:8; 1:9)	**HRGC/HRMS** AutoSpec Ultima NT **Inlet temperature** - 270 ºC **Column** – (60 m × 0.25 mm × 0.25µm) **AutoSpe**c – operated in EI mode, SIR mode **Resolution** – 10,000 (5%valley) **Ion source temperature** – 250 ºC	PCDD, PCDF, and dl-PCB	(23)
Insular Materno-Infantil University Hospital (Gran Canaria, Canary Islands, Spain; CHUIMI	**Extraction** - QuEChERS extraction procedure Acetonitrile saturated in n-hexane **Centrifuge** - (5,000 rpm, 5 min, 20 °C) **Clean up** – d-SPE SPE sorbents – PSA	**GC-QqQ-MS/MS** Fused silica capillary column BPX5 (30 m x 0.25mm x 0.25 µm) **Carrier gas** - Helium (99.999 %) (flow rate of 1.0 $mLmin^{-1}$) **Oven temperature** - Initial - 60 °C (1 min); ramped - 12 °C/min; 210 °C; raised 8 °C/min; 320 °C (6 min) **Injector** – 270 °C	*p,p′*-DDE, Hexachlorobenzene; *β*-HCH; *γ*-HCH; Dieldrin; *p,p′*-DDD; *p,p′*-DDT; Dicofol; Mirex; PCBs; PAH (naphthalene, fluorene, phenanthrene, fluoranthene, pyrene, benzo[a]anthracen, chrysene)	(13)

Area	Extraction & Cleanup	Determination	POPs detected	Ref.
Yucatan, Mexico	**Extraction** – SPE Hexane/Toluene (1:1) **Clean up** - in LC-Florisil cartridge Conditioned – with 5 mL of n-hexane	**GC-ECD** – ECD - 63Ni electron capture detector **Capillary column** - fused silica (30 m × 0.32 mm × 1.0 μm) **Carrier gas** - Helium (99.999%) (1.5 mL/min with constant pressure) **Makeup gas** - Ultrahigh purity nitrogen (flow rate - 40 mL/min) **Oven temperature**- initially at 150 °C (2 min); increased - 210 °C (10 °C min^{-1}); increased - 300 °C (5 °C min^{-1}) **ECD temperature** - 330 °C; 1.0 nA	OCPs (a-Lindane; b-Lindane; g-Lindane; d-Lindane; Heptachlor; Heptachlor epoxide; Aldrin; Dieldrin; Endrin; Endrin aldehyde; Endosulfan I; Endosulfan II; Endosulfan sulfate; DDE; DDD; DDT	(24)
France	**Extraction -** Liquid/liquid extraction with pentane. **Fat content** - gravimetric method **Clean up** with hexane Isolate OCs – GPC **Lipid removal** - acid silica; fractionation – florisil; further **Purification** - celite/carbon columns	**GC-HRMS** - on electromagnetic sector instruments (JEOL MS 700D or 800D); SIM acquisition mode (PCDD/F, PCB, PBDE, and OC) **LC-MS/MS** on a triple quadrupole instrument (HBCD isomers)	PCDD/F, PCB, PBDE, and OC HBCD	(25)
Flanders Belgium	**SPE** on an OASIS HLB (6 mL, 500 mg) cartridge, **Purification** on an acid silica column	**GC–MS** **Column** – HT-8 column (25m x 0.22 mm x 0.25 lm) with MS - EI mode (PCBs, HCB, p,p0-DDE, and p,p-DDT) DB-5 column (15m x 0.25mm x 0.10 lm) MS - ECNI mode (PBDEs and other pesticides)	PCB congeners pesticides HCB, *p,p'*-DDE, oxychlordane and *b*-HCH, dl-PCBs and PCDD/Fs	(26)

Area	Extraction & Cleanup	Determination	POPs detected	Ref.
Hong Kong	**Extraction** - Hot extraction device (Twisselmann extractor) + ethanol/toluene (70/30); 8h; **Purify**- Butyl methyl **Fat extract** – dissolved - cyclohexane/ethyl acetate (1:1 v/v) **Clean up** - gel permeation chromatography (remove fat) **Column -** (l580 mm x 25 mm x filling level 330 mm) **Eluting solvent** - Bio-Beads S-X3 + cyclohexane/ethyl acetate (1:1 v/v)	**GC/ECD** GC (Fisons Mega 2) with two custom-made columns (different polarity) parallel; 1: 30 m PS-088 [97.5% dimethyl-2.5% diphenyl siloxane copolymer], 0.32 mm i.d; 0.32 lm film thickness; 2: 30 m OV-1701-OH, 0.32 mm i.d; 0.25 lm film thickness **Confirm** - GC–MS (GC: HP 6890/ MS: HP 5973; 30 m HP5-MS, 0.25 mm i.d; 0.25 lm film thickness + 2.5 m precolumn **Detection mode**: MSD-EI GC/MS-EI, SIM mode (PBDE)	HCB, cis-hepta- chlor-epoxide, oxy-chlordane, trans-nonachlor, alpha-HCH, beta-HCH, BDE 47 and BDE 153	(27)

PLE - Pressurized liquid extraction; GC-QqQ-MS/MS - Gas chromatography coupled with a triple quadrupole mass spectrometer; PYRs - Pyrethroids; PAHs - Polycyclic aromatic hydrocarbons; OPPs - Organophosphorus pesticides; OCPs - Organochlorine pesticides; NDLPCBs - Non-dioxin-like polychlorinated biphenyls; DLPCBs - Dioxin-like polychlorinated biphenyls; PBDEs - Polybrominated diphenyl ethers ; EI - Electron impact ionization; DDC-CO - Dodecachlorodimethanodibenzocyclooctane; HRGC - High-resolution gas chromatography; DDE - Dichlorodiphenyldichloroethylene; SIM - Selective ion monitoring; HRMS - High-resolution mass spectrometer; PCDD/Fs - Polychlorinated dibenzo-p-dioxins and dibenzofurans; SPE - Solid phase extraction; ECD - Electron Capture Detector; ECNI - Electron capture negative ionization electron impact; d-SPE - Dispersive solid-phase extraction; PSA - Primary secondary amine; SIR - Selective ion recording; GPC - Gel permeation chromatography; LC-MS/MS - Liquid chromatography coupled to tandem mass spectrometry