

Forensic Collection of Trace Chemicals from Surfaces with Strippable Coatings

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Supplementary Material

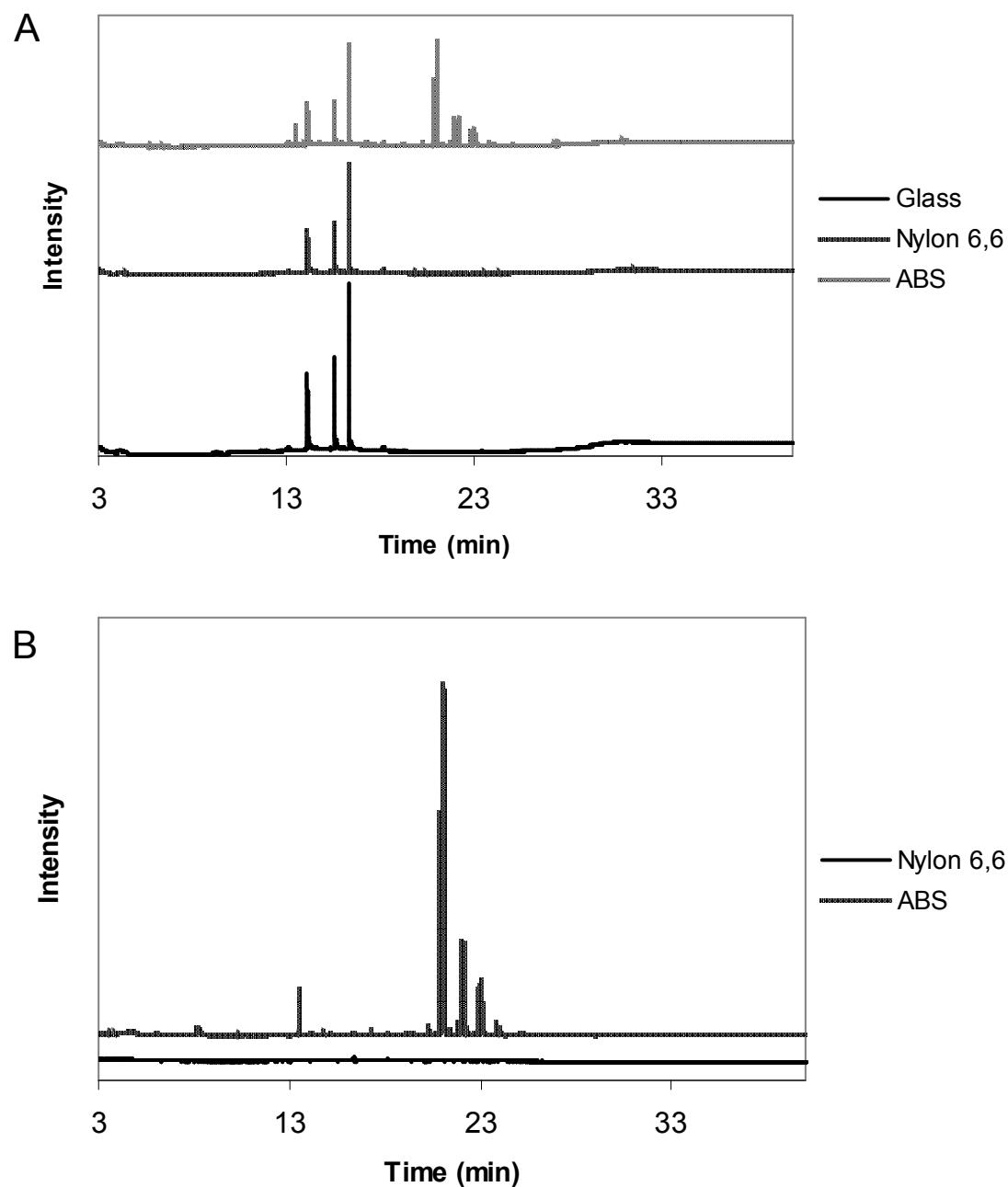


Figure S1. A) Representative chromatograms of acetone extracts of nylon 6,6 and ABS plastics. B) Ratio of Nylon 6,6 and ABS chromatograms to glass. These plots illustrate cleanliness of the nylon plastic and the types of additional interferents seen with ABS.

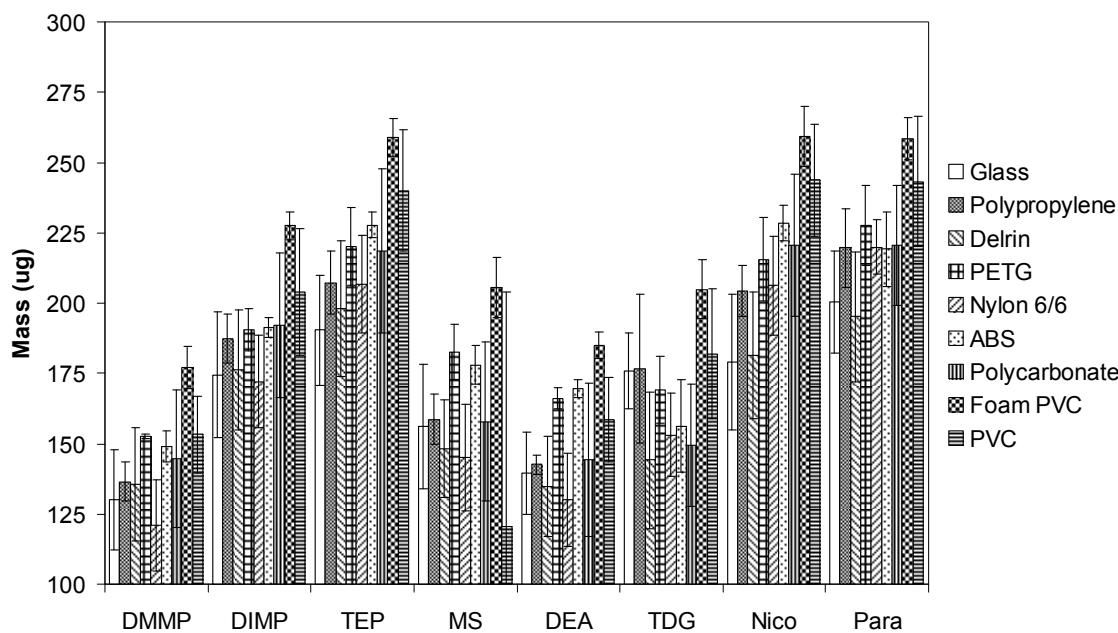


Fig. S2 Spiking cocktail mass recoveries from each of the eight tested plastics and glass. 250 µg of each component was applied to each substrate and one minute elapsed before the substrates were rinsed.

Table S1 Summary of mass recovery from each plastic substrate for each cocktail component with UC strippable coating and with gauze wipe.^a

Substrate	Method	Mass Recovery/ug (RSD)							
		DMMP	DIMP	TEP	MS	DEA	TDG	Nico	Para
Glass	UC	217 (93)	195 (17)	237 (20)	172 (15)	179 (11)	250 (52)	212 (21)	165 (35)
	Gauze	34 (12)	51 (17)	73 (19)	58 (15)	67 (16)	40 (20)	67 (20)	30 (19)
Nylon 6,6	UC	135 (17)	176 (13)	220 (12)	152 (14)	163 (14)	206 (30)	199 (10)	181 (15)
	Gauze	39 (8)	51 (11)	70 (15)	60 (12)	68 (13)	37 (11)	62 (14)	27 (12)
PETG	UC	186 (88)	217 (96)	249 (101)	174 (69)	163 (71)	157 (36)	191 (7)	69 (54)
	Gauze	15 (7)	19 (9)	31 (11)	14 (7)	23 (7)	6 (11)	18 (10)	ND
polycarbonate	UC	117 (10)	171 (7)	217 (16)	100 (11)	168 (11)	142 (24)	201 (11)	138 (18)
	Gauze	26 (13)	43 (20)	62 (24)	46 (18)	54 (20)	22 (20)	54 (24)	13 (19)
Foam PVC	UC	125 (35)	166 (43)	203 (45)	134 (6)	186 (10)	167 (51)	204 (54)	173 (28)
	Gauze	20 (11)	29 (15)	45 (18)	36 (15)	44 (15)	15 (16)	38 (18)	6 (15)

^a Relative standard deviations of the mean are shown in parenthesis (n=5). ^bNot Detected.

Table S2 Summary of mass recovery from wallboard and concrete substrates for each cocktail component with UC strippable coating and with gauze wipe.^a

Substrate	Method	Mass Recovery/ μg (RSD)							
		DMMP	DIMP	TEP	MS	DEA	TDG	Nico	Para
Glass	UC	121 (13)	149 (16)	162 (15)	168 (18)	163 (13)	171 (20)	170 (15)	173 (26)
	Gauze	39 (35)	59 (48)	72 (54)	72 (52)	69 (45)	47 (57)	75 (54)	48 (56)
Wallboard	UC	120 (29)	176 (13)	220 (12)	152 (14)	163 (14)	206 (30)	199 (10)	181 (15)
	Gauze	0 (0)	ND	ND	1 (1)	4 (1)	ND	ND	ND
Concrete	UC	72 (11)	84 (11)	116 (14)	87 (13)	71 (9)	131 (20)	151 (17)	65 (11)
	Gauze	6 (7)	10 (1)	16 (1)	11 (1)	15 (1)	21 (15)	26 (2)	1 (2)

^a Relative standard deviations of the mean are shown in parenthesis (n=5). ^bNot Detected.