

**Supplementary Material Table S1.** Temperature and matrix-dependent recoveries of 56 semi-volatile organic compounds. Values are means of triplicate measurements. un: Uncontrolled environment (rooftop).

| Compound                     | Recoveries, solution (%) |     |      |    | Recoveries, dry/reconstituted (%) |     |      |    |
|------------------------------|--------------------------|-----|------|----|-----------------------------------|-----|------|----|
|                              | -20°C                    | 4°C | 22°C | un | -20°C                             | 4°C | 22°C | un |
| <b>AMINE</b>                 |                          |     |      |    |                                   |     |      |    |
| N-Nitrosodimethylamine       | 91                       | 89  | 87   | 2  | 64                                | 12  | 5    | 0  |
| N-Nitroso-di-n-propylamine   | 94                       | 87  | 88   | 45 | 85                                | 76  | 65   | 6  |
| Azobenzene                   | 94                       | 91  | 92   | 81 | 92                                | 89  | 85   | 80 |
| Benzidine                    | 113                      | 114 | 112  | 15 | 114                               | 77  | 53   | 25 |
| 3,3'-Dichlorobenzidine       | 117                      | 117 | 116  | 98 | 115                               | 110 | 104  | 99 |
| <b>CHLORINATED ETHER</b>     |                          |     |      |    |                                   |     |      |    |
| bis(2-Chloroethyl) ether     | 97                       | 92  | 92   | 5  | 72                                | 18  | 9    | 0  |
| bis(2-Chloroisopropyl) ether | 95                       | 89  | 90   | 8  | 74                                | 24  | 14   | 0  |
| 4-Chlorophenyl-phenyl ether  | 99                       | 94  | 95   | 81 | 94                                | 93  | 89   | 77 |
| 4-Bromophenyl-phenyl ether   | 98                       | 95  | 95   | 85 | 96                                | 94  | 91   | 88 |
| <b>CHLORINATED AROMATIC</b>  |                          |     |      |    |                                   |     |      |    |
| 1,3-Dichlorobenzene          | 101                      | 95  | 95   | 0  | 49                                | 3   | 1    | 0  |
| 1,4-Dichlorobenzene          | 97                       | 91  | 91   | 1  | 50                                | 3   | 1    | 0  |
| 1,2-Dichlorobenzene          | 97                       | 92  | 92   | 1  | 57                                | 6   | 2    | 0  |
| 1,2,4-Trichlorobenzene       | 97                       | 93  | 93   | 17 | 80                                | 38  | 26   | 0  |
| Hexachlorobenzene            | 96                       | 93  | 92   | 83 | 93                                | 94  | 90   | 90 |
| 2-Chloronaphthalene          | 95                       | 92  | 94   | 60 | 90                                | 81  | 74   | 26 |
| <b>CHLORINATED ALIPHATIC</b> |                          |     |      |    |                                   |     |      |    |
| Hexachloroethane             | 97                       | 91  | 91   | 1  | 49                                | 5   | 2    | 0  |
| bis(2-Chloroethoxy)methane   | 97                       | 92  | 92   | 42 | 88                                | 69  | 58   | 2  |
| Hexachlorobutadiene          | 100                      | 95  | 96   | 9  | 77                                | 25  | 15   | 0  |
| Hexachlorocyclopentadiene    | 70                       | 72  | 67   | 0  | 64                                | 11  | 0    | 0  |
| <b>NITROBENZENE</b>          |                          |     |      |    |                                   |     |      |    |
| Nitrobenzene                 | 96                       | 93  | 92   | 19 | 83                                | 44  | 30   | 0  |
| 2,6-Dinitrotoluene           | 104                      | 103 | 101  | 75 | 103                               | 103 | 89   | 74 |
| 2,4-Dinitrotoluene           | 113                      | 112 | 109  | 82 | 111                               | 112 | 100  | 88 |
| <b>PHENOL</b>                |                          |     |      |    |                                   |     |      |    |
| Phenol                       | 100                      | 102 | 100  | 27 | 72                                | 38  | 28   | 0  |
| 2-Chlorophenol               | 106                      | 106 | 105  | 41 | 67                                | 16  | 8    | 0  |
| 2-Nitrophenol                | 90                       | 89  | 88   | 38 | 91                                | 58  | 41   | 0  |
| 2,4-Dimethylphenol           | 93                       | 91  | 91   | 69 | 99                                | 81  | 71   | 4  |
| 2,4-Dichlorophenol           | 85                       | 84  | 83   | 21 | 82                                | 65  | 54   | 2  |
| 4-Chloro-3-methylphenol      | 92                       | 90  | 89   | 5  | 90                                | 88  | 81   | 48 |
| 2,4,6-Trichlorophenol        | 94                       | 95  | 95   | 65 | 92                                | 89  | 82   | 42 |
| 2,4-Dinitrophenol            | 94                       | 102 | 102  | 61 | 99                                | 99  | 88   | 53 |
| 4-Nitrophenol                | 92                       | 92  | 90   | 73 | 91                                | 89  | 83   | 80 |
| 4,6-Dinitro-2-methylphenol   | 100                      | 107 | 104  | 69 | 104                               | 106 | 96   | 75 |
| Pentachlorophenol            | 87                       | 91  | 91   | 72 | 91                                | 91  | 87   | 81 |

| Compound                   | Recoveries, solution (%) |      |       |     | Recoveries, dry/reconstituted (%) |      |       |     |
|----------------------------|--------------------------|------|-------|-----|-----------------------------------|------|-------|-----|
|                            | -20 °C                   | 4 °C | 22 °C | un  | -20 °C                            | 4 °C | 22 °C | un  |
| <b>CYCLIC KETONE</b>       |                          |      |       |     |                                   |      |       |     |
| Isophorone                 | 95                       | 90   | 91    | 46  | 89                                | 58   | 29    | 6   |
| <b>PHTHALATE ESTER</b>     |                          |      |       |     |                                   |      |       |     |
| Dimethylphthalate          | 96                       | 93   | 94    | 85  | 93                                | 93   | 90    | 87  |
| Diethylphthalate           | 101                      | 96   | 96    | 92  | 96                                | 96   | 94    | 95  |
| Di-n-butylphthalate        | 105                      | 98   | 99    | 102 | 100                               | 99   | 96    | 101 |
| Butylbenzylphthalate       | 95                       | 90   | 90    | 81  | 92                                | 91   | 88    | 89  |
| bis(2-Ethylhexyl)phthalate | 103                      | 100  | 100   | 96  | 103                               | 98   | 96    | 99  |
| Di-n-octylphthalate        | 105                      | 99   | 99    | 94  | 101                               | 102  | 95    | 101 |
| <b>POLYCYCLIC AROMATIC</b> |                          |      |       |     |                                   |      |       |     |
| Naphthalene                | 92                       | 88   | 89    | 22  | 79                                | 45   | 34    | 0   |
| Acenaphthylene             | 86                       | 83   | 84    | 57  | 82                                | 67   | 59    | 39  |
| Acenaphthene               | 94                       | 90   | 91    | 71  | 90                                | 86   | 82    | 54  |
| Fluorene                   | 94                       | 89   | 90    | 78  | 90                                | 89   | 85    | 77  |
| Phenanthrene               | 95                       | 91   | 92    | 84  | 92                                | 91   | 89    | 90  |
| Anthracene                 | 93                       | 89   | 91    | 64  | 90                                | 90   | 87    | 80  |
| Fluoranthene               | 100                      | 93   | 95    | 91  | 95                                | 95   | 92    | 95  |
| Pyrene                     | 89                       | 84   | 85    | 79  | 86                                | 86   | 84    | 86  |
| Benzo[a]anthracene         | 88                       | 85   | 85    | 80  | 86                                | 86   | 83    | 86  |
| Chrysene                   | 92                       | 89   | 90    | 83  | 90                                | 90   | 88    | 90  |
| Benzo[b]fluoranthene       | 96                       | 91   | 92    | 86  | 92                                | 93   | 89    | 94  |
| Benzo[k]fluoranthene       | 94                       | 90   | 92    | 85  | 91                                | 92   | 90    | 92  |
| Benzo[a]pyrene             | 84                       | 79   | 80    | 73  | 80                                | 79   | 77    | 80  |
| Indeno[1,2,3-cd]pyrene     | 96                       | 90   | 92    | 87  | 93                                | 92   | 89    | 92  |
| Dibenz[a,h]anthracene      | 105                      | 99   | 101   | 92  | 103                               | 101  | 98    | 102 |
| 1,12-Benzoperylene         | 97                       | 91   | 94    | 88  | 94                                | 92   | 90    | 93  |