

Arsenic Speciation on Hamilton PRP-X100

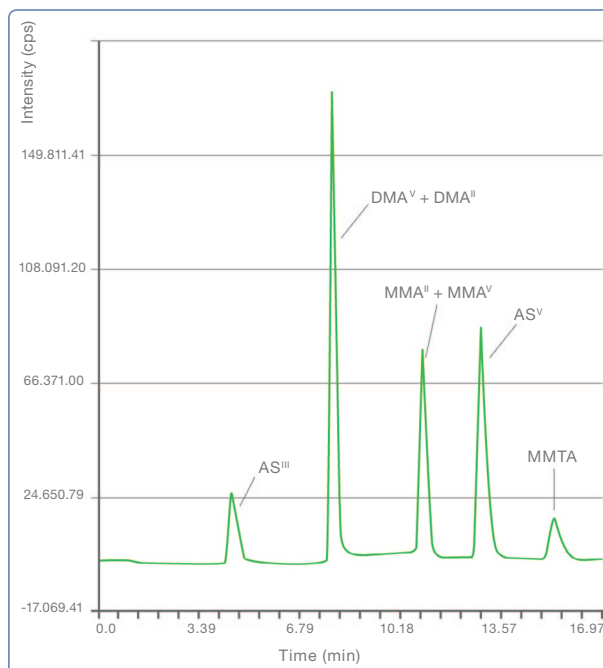
Organic arsenic compounds added to feed stocks of chicken and poultry pose serious environmental and ecological threats. National and worldwide health organizations, such as the United States Environmental Protective Agency and the US Food and Drug Administration, have recently implemented more stringent concentration limits for arsenic species in drinking water and foodstuffs.

Analysis of arsenic species is made challenging due to diverse sample matrices. To circumvent these problems, an HPLC-ICPMS method has been developed. Resolution of arsenic compounds is achieved by ion exchange chromatography on a Hamilton PRP-X100 column, a 55% cross-linked polystyrene-divinylbenzene copolymer functionalized with quaternary ammonium anion-exchanger group. Detection is accomplished by inductively coupled plasma-mass spectrometry.

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|-------------------|--|
| Column: | Hamilton PRP-X100, 5 μ m, 4.6 x 250 mm |
| Part Number: | 79181 |
| Flow Rate: | 1.0 mL/min |
| Mobile Phase: | 2 mM (NH ₄) ₂ CO ₃ for 0 – 3 min 40 mM (NH ₄) ₂ CO ₃ for 3 – 14 min 2 mM (NH ₄) ₂ CO ₃ for 13 – 17 min |
| Injection Volume: | 50 μ L, 100 μ g/L of each standard |
| Detection: | ICP-MS |

Ordering Information

| Part Number | Product Name | Particle Size | Dimensions | Material |
|-------------|--------------|---------------|---------------|-----------------|
| 79852 | PRP-X100 | 5 μ m | 2.1 x 150 mm | PEEK |
| 79190 | PRP-X100 | 5 μ m | 2.1 x 250 mm | Stainless Steel |
| 79810 | PRP-X100 | 5 μ m | 4.1 x 50 mm | Stainless Steel |
| 79538 | PRP-X100 | 5 μ m | 4.1 x 100 mm | Stainless Steel |
| 79812 | PRP-X100 | 5 μ m | 4.1 x 150 mm | Stainless Steel |
| 79174 | PRP-X100 | 5 μ m | 4.6 x 150 mm | PEEK |
| 79181 | PRP-X100 | 5 μ m | 4.6 x 250 mm | PEEK |
| 79421 | PRP-X100 | 10 μ m | 2.1 x 150 mm | Stainless Steel |
| 79346 | PRP-X100 | 10 μ m | 2.1 x 250 mm | Stainless Steel |
| 79365 | PRP-X100 | 10 μ m | 4.1 x 50 mm | Stainless Steel |
| 79439 | PRP-X100 | 10 μ m | 4.1 x 100 mm | Stainless Steel |
| 79434 | PRP-X100 | 10 μ m | 4.1 x 150 mm | Stainless Steel |
| 79433 | PRP-X100 | 10 μ m | 4.1 x 250 mm | Stainless Steel |
| 79354 | PRP-X100 | 10 μ m | 4.6 x 150 mm | PEEK |
| 79455 | PRP-X100 | 10 μ m | 4.6 x 250 mm | PEEK |
| 79353 | PRP-X100 | 12–20 μ m | 21.2 x 250 mm | Stainless Steel |



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