

**Manganese Nodule Nano-Pellet, pressed pellet diameter 13 mm (Standard for solid-state microanalysis)**

Art. ID MY-NOD-P1-NP-LA-ICP-MS-13MM  
Unit each (pressed pellet)  
Deliverydetails No Dangerous Good /not restricted

Description

Pellet for LA-ICP-MS application /// The principle behind LA-ICP-MS (Laser Ablation - Inductively Coupled Plasma - Mass Spectrometry) involves a laser beam removing (ablating) material from a sample and analysing its chemical composition in a mass spectrometer

| Text/Information | Analyte/Parameter                  | CAS number  | Concentration/Value | Unit   | Method | Source |
|------------------|------------------------------------|-------------|---------------------|--------|--------|--------|
|                  | Na <sub>2</sub> O                  |             | 2,15 ± 0,04         | g/100g |        |        |
|                  | MgO                                | [1309-48-4] | 3,17 ± 0,17         | g/100g |        |        |
|                  | Al <sub>2</sub> O <sub>3</sub>     |             | 4,6 ± 0,23          | g/100g |        |        |
|                  | SiO <sub>2</sub>                   |             | 14,9 ± 0,4          | g/100g |        |        |
|                  | P <sub>2</sub> O <sub>5</sub>      |             | 0,46 ± 0,02         | g/100g |        |        |
|                  | K <sub>2</sub> O                   |             | 1,23 ± 0,09         | g/100g |        |        |
|                  | CaO                                |             | 3 ± 0,2             | g/100g |        |        |
|                  | TiO <sub>2</sub>                   |             | 0,45 ± 0,02         | g/100g |        |        |
|                  | MnO                                |             | 37,1 ± 1,3          | g/100g |        |        |
|                  | Fe <sub>2</sub> O <sub>3</sub> (T) |             | 8,24 ± 0,22         | g/100g |        |        |
|                  | Lithium (Li)                       | [7439-93-2] | 140 ± 13            | µg/g   |        |        |
|                  | Vanadium (V)                       | [7440-62-2] | 469 ± 22            | µg/g   |        |        |
|                  | Cobalt (Co)                        | [7440-48-4] | 2190 ± 91           | µg/g   |        |        |
|                  | Nickel (Ni)                        | [7440-02-0] | 12681 ± 387         | µg/g   |        |        |
|                  | Copper (Cu)                        | [7440-50-8] | 11288 ± 479         | µg/g   |        |        |
|                  | Zinc (Zn)                          | [7440-66-6] | 1522 ± 87           | µg/g   |        |        |
|                  | Arsenic (As)                       | [7440-38-2] | 88 ± 12             | µg/g   |        |        |
|                  | Rubidium (Rb)                      | [7440-17-7] | 24,7 ± 1,7          | µg/g   |        |        |
|                  | Strontium (Sr)                     | [7440-24-6] | 660 ± 29            | µg/g   |        |        |
|                  | Yttrium (Y)                        | [7440-65-5] | 93 ± 10             | µg/g   |        |        |
|                  | Zirconium (Zr)                     | [7440-67-7] | 278 ± 33            | µg/g   |        |        |
|                  | Niobium (Nb)                       | [7440-03-1] | 23 ± 5              | µg/g   |        |        |
|                  | Molybdenum (Mo)                    | [7439-98-7] | 632 ± 116           | µg/g   |        |        |
|                  | Antimony (Sb)                      | [7440-36-0] | 54,1 ± 3,6          | µg/g   |        |        |
|                  | Barium (Ba)                        | [7440-39-3] | 2564 ± 65           | µg/g   |        |        |
|                  | Lanthanum (La)                     | [7439-91-0] | 111 ± 21            | µg/g   |        |        |
|                  | Cerium (Ce)                        | [7440-45-1] | 319 ± 24            | µg/g   |        |        |

|                   |             |            |      |
|-------------------|-------------|------------|------|
| Praseodymium (Pr) | [7440-10-0] | 30,4 ± 2   | µg/g |
| Neodymium (Nd)    | [7440-00-8] | 135 ± 9    | µg/g |
| Samarium (Sm)     | [7440-19-9] | 33,4 ± 2,1 | µg/g |
| Europium (Eu)     | [7440-53-1] | 7,8 ± 0,3  | µg/g |
| Gadolinium (Gd)   | [7440-54-2] | 30,7 ± 1,2 | µg/g |
| Terbium (Tb)      | [7440-27-9] | 4,6 ± 0,3  | µg/g |
| Dysprosium (Dy)   | [7429-91-6] | 26,8 ± 1   | µg/g |
| Holmium (Ho)      | [7440-60-0] | 5 ± 0,6    | µg/g |
| Erbium (Er)       | [7440-52-0] | 13,7 ± 0,8 | µg/g |
| Thulium (Tm)      | [7440-30-4] | 2 ± 0,3    | µg/g |
| Ytterbium (Yb)    | [7440-64-4] | 12,9 ± 0,5 | µg/g |
| Lutetium (Lu)     | [7439-94-3] | 1,9 ± 0,2  | µg/g |
| Hafnium (Hf)      | [7440-58-6] | 86 ± 18,4  | µg/g |
| Tantalum (Ta)     | [7440-25-7] | 0,4 ± 0,3  | µg/g |
| Tungsten (W)      | [7440-33-7] | 58 ± 3     | µg/g |
| Thallium (Tl)     | [7440-28-0] | 191 ± 22   | µg/g |
| Lead (Pb)         | [7439-92-1] | 434 ± 23   | µg/g |
| Bismuth (Bi)      | [7440-69-9] | 4,8 ± 0,3  | µg/g |
| Thorium (Th)      | [7440-29-1] | 15,5 ± 0,5 | µg/g |
| Uranium (U)       | [7440-61-1] | 4,1 ± 0,4  | µg/g |