



MOARA XRD MCCRONE

The XRD-Mill McCrone was specially developed for the preparation of samples for subsequent X-ray diffraction (XRD). The mill is used for applications in geology, chemistry, mineralogy and materials science, quality control as well as R&D.

Because of its unique grinding motion, the XRD-Mill McCrone is particularly effective for this analytical method: The 48 cylindrical grinding elements grind the samples gently via friction. The result is a short grinding time with almost no sample loss and an exceptionally narrow particle size distribution. Consequently, the signals in the X-ray diffraction pattern are peak-shaped, with small half-widths, allowing for very good phase analysis.

The crystal lattice structure is largely preserved, with almost no defects, a prerequisite for meaningful X-ray diffraction patterns.

The grinding vessel consists of a 125 ml capacity polypropylene jar fitted with a screw capped gasketless polyethylene closure. The jar is filled with an ordered array of 48 identical cylindrical grinding elements, available in agate, zirconium oxide or corundum. The grinding time for optimum micronization is between 3 and 30 minutes. A typical sample volume is between 2 and 4 ml.

For the preparation of organic samples for a subsequent XRD examination we also offer a hand mortar and pestle made of agate.



ADVANTAGES

- | crystal lattice preserved during grinding operation
- | very narrow and reproducible particle size distribution
- | minimal cross contamination
- | compact, bench-top sized model
- | adjustable grinding power (4 steps)
- | potrivită pentru măcinare uscată sau umedă
- | easy to clean
- | almost maintenance-free
- | quiet operation

EXEMPLE DE APLICAȚII

argilă, borides, carbid, ciment, materiale de construcții, materiale de plantare, materiale ceramice, metale, mice (minerale cristalizate), minerale, nitrură, oase, slate, sticlă

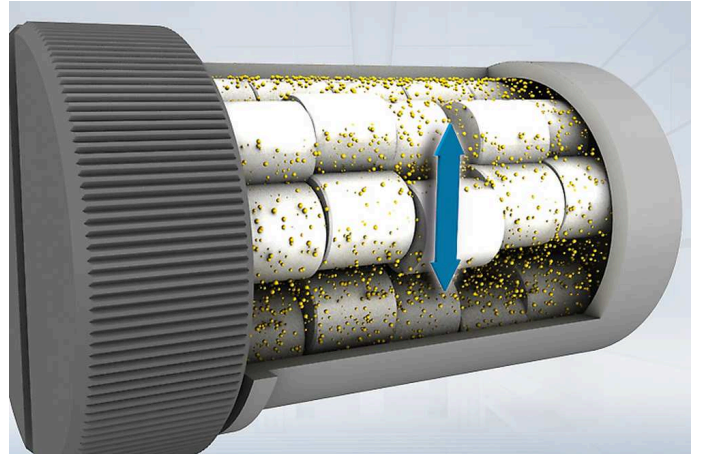
Pentru a găsi cea mai bună soluție de măcinare accesați baza noastră de date

PRINCIPIU DE FUNCȚIONARE

The XRD-Mill McCrone carries out size reduction mainly by friction. 48 cylindrical grinding elements are placed into the grinding jar in eight rows of six elements each.

During operation, the jar's circular motion causes the elements to grind the sample from < 0.5 mm to the low μm -range (typically < 10 μm).

Thanks to the very gentle size reduction process, the crystal lattice of the sample is preserved. This makes the XRD-Mill McCrone the instrument of choice for the sample preparation for subsequent X-ray diffraction analysis.



CARACTERISTICI TEHNICE

Aplicabilitate	concasare, amestecare și măcinare fină, uscată și umedă
Domenii in care se utilizeaza	X-ray diffraction
Material probă	duritate medie sau mare, casant, fibros
Dimens. max. probă*	< 0.5 mm
Finețe finală*	< 1 μm
Viteza la 50 Hz (60 Hz)	1,000 - 1,500 min ⁻¹ in 4 steps
Posturi de macinare	1
Media duratei de măcinare	3 - 30 min
Macinare uscată	da
Măcinare umedă	da
Măcinare criogenică	nu
Material de constructie a elementelor de macinare	agat, oxid de zirconiu, corindon
Dimensiuni recipiente de macinare	125 ml
Setarea timpului de macinare	digitală, 00:00:01 la 99:59:50
Antrenare	Motor DC
Putere motor	50W
Alimentare electrica	100-240 V, 50/60 Hz
Conectare sursă de alimentare	monofazic
Grad de protecție	IP 30
Putere instalata	33 VA
W x H x D (închis)	205 x 155 x 520 mm
Masa netă:	~8.9 kg
Standard	CE

* în funcție de materialul probei și configurația/setările instrumentului

www.retsch.ro/xrd-mill

INFORMAȚII DESPRE COMANDĂ

XRD-MILL MCCRONE

**XRD-Mill McCrone with 2 grinding jars with screw top lid of PP, 1 pouring lid, 1 loading device
(Please order grinding elements separately)**

20.770.0001



XRD-Mill McCrone, 220-240 V, 50/60 Hz

XRD-MILL MCCRONE COMPLETE PACKAGE

XRD-Mill McCrone complete package incl. 2 agate grinding sets (50 grinding elements each), 2 grinding jars with screw top lid of PP, 1 pouring lid, 1 loading device

20.770.1001



XRD-Mill McCrone, 220-240 V, 50/60 Hz complete package

SETS OF GRINDING ELEMENTS

02.368.0123



Agate

1 set (50 grinding elements)

02.368.0122



Corundum

1 set (48 grinding elements)

02.368.0126



Zirconium oxide, 1 set (48 grinding elements)

ACCESSORIES XRD-MILL MCCRONE

22.460.0001

Sample preparation set (stainless steel percussion mortar, 10 corundum grinding elements, 1 sieve 500 μm and 1 brush)

02.368.0124



Grinding elements, tungsten carbide, 2 pieces

ADDITIONAL ITEMS XRD-MILL MCCRONE

01.462.0356



Grinding jar with screw top lid

03.462.0359

Screw top lid

03.462.0357



Pouring lid

03.486.0007



Loading device

22.111.0005

Gasket for grinding jar, 5 pcs.