

# Lanthanum Strontium Manganate

## Technical Data Sheet

  
NanoDynamics™  
DATA/INFO

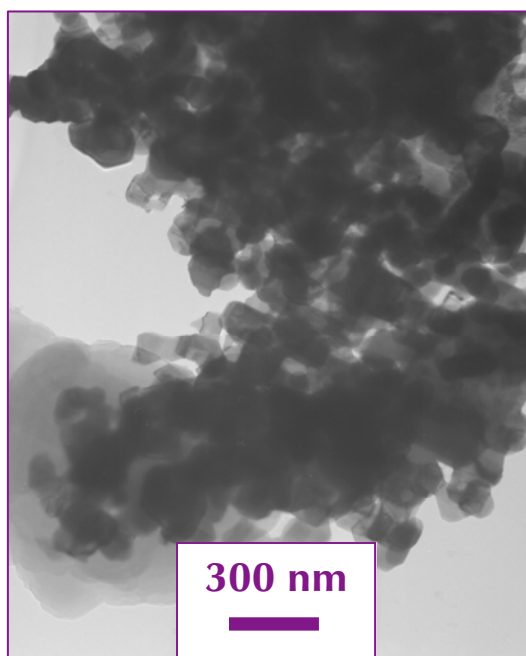
**Lanthanum Strontium Manganate (LSM)** is manufactured from high purity precursors using a proprietary chemical precipitation process. This advanced process insures precise control of chemical composition and extreme particle-to-particle homogeneity. The resulting powder is nanocrystalline and phase pure, as confirmed by x-ray, with a nominal surface area of 5.5 m<sup>2</sup>/g and exhibits excellent low temperature sintering characteristics.

The powder, with a chemical composition of **La<sub>0.85</sub>Sr<sub>0.15</sub>MnO<sub>x</sub>**, is provided in dry form, sealed for transport in Nalgene® bottles. Other compositions of LSM are available upon request.

### Applications

- Coatings (e.g. cathodes for solid oxide fuel cells)
- Incorporation into a colloid suitable for use as an ink
- Precursor for dip or spin coating applications
- Tape casting

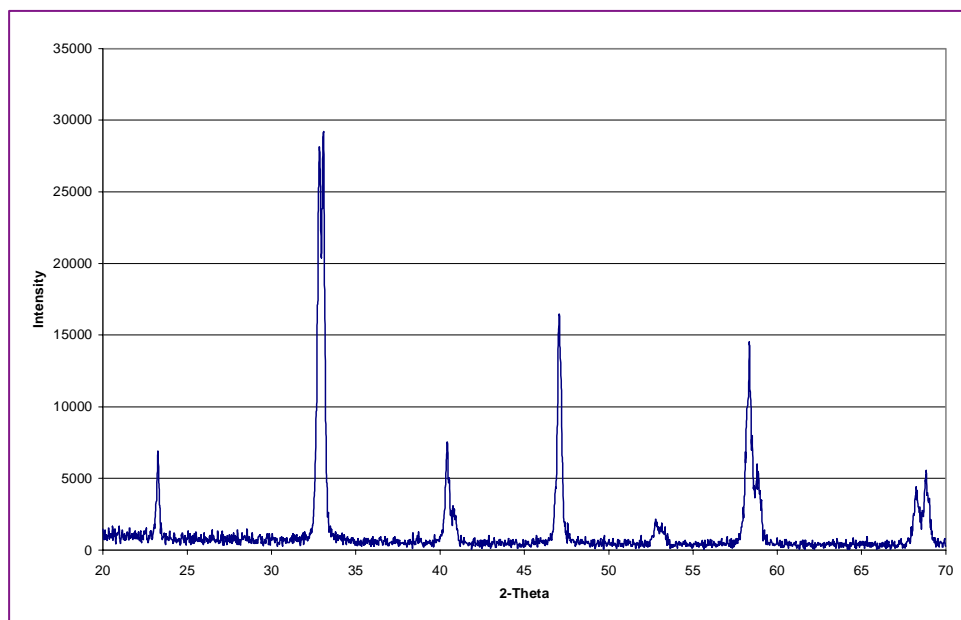
Typical TEM



Typical trace impurities of the starting precursors for  $\text{La}_{0.85}\text{Sr}_{0.15}\text{MnO}_x$

Impurity	Amount (ppm)	Impurity	Amount (ppm)
Nd	60	Ba	1
Ce	55	Mn	4
Pr	54	Pb	107
Sm	52	Sb	18
Y	28	Na	37
Fe	30	Ag	2
Ca	73	Al	5
Si	60	Sr	31
Cl	157	Cu	1
Ni	37	Co	2

Typical X-ray diffraction pattern for nanocrystalline  $\text{La}_{0.85}\text{Sr}_{0.15}\text{MnO}_x$



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