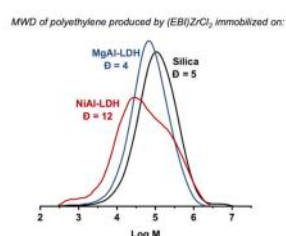


Layered double hydroxide catalyst supports

Oxford scientists have developed novel layered double hydroxide (LDH) catalyst supports for use in polymerisation reactions.

Applications: Polymerisation, Catalyst, Catalyst Support, Layered Double Hydroxide



Features	Benefits
Synthesis of SiO_2 - LDH catalyst support	Growth of hydrophobic LDH platelets on the outer surface of an amorphous silica particle
SiO_2 - LDH has unique core-shell structure for catalyst support	Synergistic system where activities exceed that of silica or LDH alone
Synthesis of novel mixed metal LDH metallocene support compositions	Demonstrated on polymerisation catalysts, in particular metallocenes, and in production of polymers, in particular polyethylene
Novel mixed metal LDH metallocene support offers Tailored polymerisation of olefins (especially bimodal polyethylene)	Suitable for slurry or gas-phase processes

Features	Benefits
	Provides morphological control which can be readily tailored
	More active support than conventional silica supports
	Suitable for supporting a polymerisation catalyst
	Alternative to classical polyethylene catalysts such as Ziegler-Natta and Phillips systems
	Capable of affording a multimodal polyolefin
	Catalyst support can tune the Molecular Weight Distribution (MDW) of a polyolefin
	Uses single olefin polymerisation catalyst

Patented and Available for

- Co-development
- Consulting
- Licensing

To find out more, contact enquiries@innovation.ox.ac.uk and quote the project number.

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