

Design of Metal-Organic Molecular Precursors for Atomic Layer Deposition

Jan Gerken

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Georg-August-Universität Göttingen

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for Atomic Layer Deposition

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Abbreviations

ALD	atomic layer deposition
AFM	atomic force microscopy
C ₆ D ₆	benzene-d6
CVD	chemical Vapor Deposition
EDX	energy dispersive X-ray spectroscopy
Et ₂ O	diethyl ether
h	hour
ⁱ Pr	iso-propyl group
GPC	growth per cycle
Me	methyl
HER	hydrogen evolution reaction
HMDS	bis(trimethylsilyl)amine
<i>n</i> -BuLi	n-buthyllithium
NMR	nuclear magnetic resonance
Ph	phenyl
ppm	parts per million
RT	room temperature
SEM	Scanning electron microscope
^t Bu	tert-Butyl group
TGA	thermogravimetric analysis
THF	tetrahydrofuran
TMS	trimethylsilyl group
TMP	2,2,6,6-tetramethylpiperidine
TMPLi	lithium 2,2,6,6-tetramethylpiperidide
XPS	X-ray photoelectron spectroscopy