

Ingeborg Heuschkel

Investigating novel concepts for the efficient production of nylon precursors from cyclohexane

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Everything is going to be fine in the end. If it's not fine it's not the end.

— Oscar Wilde

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List of Abbreviations

SI-units and abbreviations as well as symbols or chemical formulas will not be listed in this index.

%	Percent
Aa	Adipic acid
ADP	Adenosindiphosphate
ADH	Aldehyde dehydrogenase
AlcDH	Alcohol dehydrogenase
ATP	Adenosintriphosphate
BDW	Biomass dry weight
BVMO	Baeyer-Villiger-Monooxygenase
°C	Degree Celsius
CDW	Cell dry weight
CDH	Cyclohexanol dehydrogenase
CHOL	Cyclohexanol
CHON	Cyclohexanone
CHX	Cyclohexane
CL	ϵ -Caprolactone
CYP	Cytochrome P450 monooxygenase
DFR	Drip flow reactor
DGC	Diguanylate cyclase
DMSO	Dimethyl sulfoxide
EDTA	Ethylenediaminetetraacetic acid
eGFP	Enhanced green fluorescent protein
EPS	Extracellular polymeric substances
et al.	Et alii, et aliae, et alia
FAD	Flavin adenine dinucleotide
FdR	Ferredoxin reductase
FID	Flame ionization detector
GC	Gas chromatography

Gm	Gentamycin
HPLC	High pressure liquid chromatography
i. d.	Inner diameter
IPTG	Isopropyl- β -D-thiogalactopyranoside
Ki	Substrate inhibition constant [mmol L ⁻¹]
Km	Kanamycin
Kpi	Potassium phosphate
Ks	Substrate uptake constant [mmol L ⁻¹]
λ	Wavelength, lambda
Lact	Lactonase
LB	Lysogeny broth
M	Molar
MABR	Membrane aerated biofilm reactor
μ	Growth rate [h ⁻¹]
min	Minute
NAD(P/H)	(reduced) Nicotinamide adenine dinucleotide (phosphate)
OD ₄₅₀	Optical density at 450 nm
OD ₇₅₀	Optical density at 750 nm
6OH	6-Hydroxyhexanoic acid
PbR	Packed bed reactor
PBR	Photobioreactor
PCR	Polymerase chain reaction
pH-Wert	Negative decadic logarithm of the hydrogen ion concentration
PI	Propidium iodide
pO ₂	Partial pressure of oxygen
RB	Riesenberg
RBBR	Rotating bed biofilm reactor
RBR	Rotating bed reactor
RDR	Rotating disk reactor
Re	Reynolds number

RI	Refractive index
RT	Room temperature
(e)PTFE	(expanded) Polytetrafluoroethylene
SEM	Scanning electron microscopy
STR	Stirred tank reactor
Strep	Streptomycin
TBR	Trickle bed reactor
U	Unit [1 μmol substrate per min]
v/v	Volume/volume
w. th.	Wall thickness
w/v	Weight/volume
w/w	Weight/weight