Thomas Becker

Investigation of the Co-Polymerisation of Ethene and 1,7-Octadiene under High-Pressure Conditions

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Investigation of the Co-Polymerisation of Ethene and 1,7-Octadiene under High-Pressure Conditions

- Untersuchung der Co-Polymerisation von Ethen und 1,7-Oktadien unter Hochdruck-Bedingungen -

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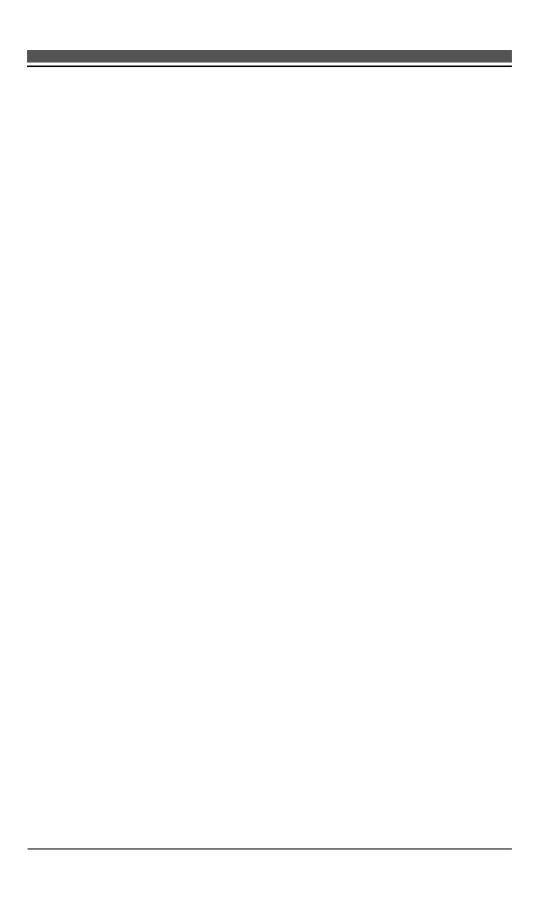
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II Abbreviations

CAD computer aided drawing

C-C carbon-carbon

CFD computational fluid dynamics
CLD chain length distribution
cld chain-length dependent

comb. recombination

COM component object model

CSTR continuously stirred tank reactor

CTA chain transfer agent $C_{tr} \hspace{1cm} \text{chain-transfer coefficient}$

disp.disproportionationDTBPdi-tert-butyl-peroxide E_A activation energyf(M)number distributionGCgas chromatograph

GPC gel-permeation-chromatograph
HDPE high-density-polyethylene

HP high-pressure

HPS high-pressure separator HT high-temperature

IR infrared

k rate coefficient

LCB long-chain branch

LDPE low-density-polyethylene LPS low-pressure separator

M monomer

 M_M mass of a monomeric unit

 $M_{\rm n}$ number average molecular weight

MS mass spectrometer

 $M_{
m w}$ weight average molecular weight $M_{
m z}$ centrifugation average molecular

weight

MWD molecular weight distribution

ncld not-chain-length dependent NMR nuclear magnetic resonance $P_{\rm n}$ degree of polymerisation

p pressurep propagation

PA propionic-aldehyde

PC-SAFT perturbed chain statistical associating

fluid theory

PDI polydispersity index

PE polyethylene

PID proportional-integral-differential

Pol polymer R radical

SCB short-chain branch

sec secondary

SET single electron transfer

T temperature t termination

TBPA tert-butyl-peroxy-acetate

 $egin{array}{ll} {
m tr} & {
m tr} {
m ans} {
m fer} \\ {
m X} & {
m conversion} \end{array}$

XLPE crosslinked-polyethylene

 μ_0 zeroth moment