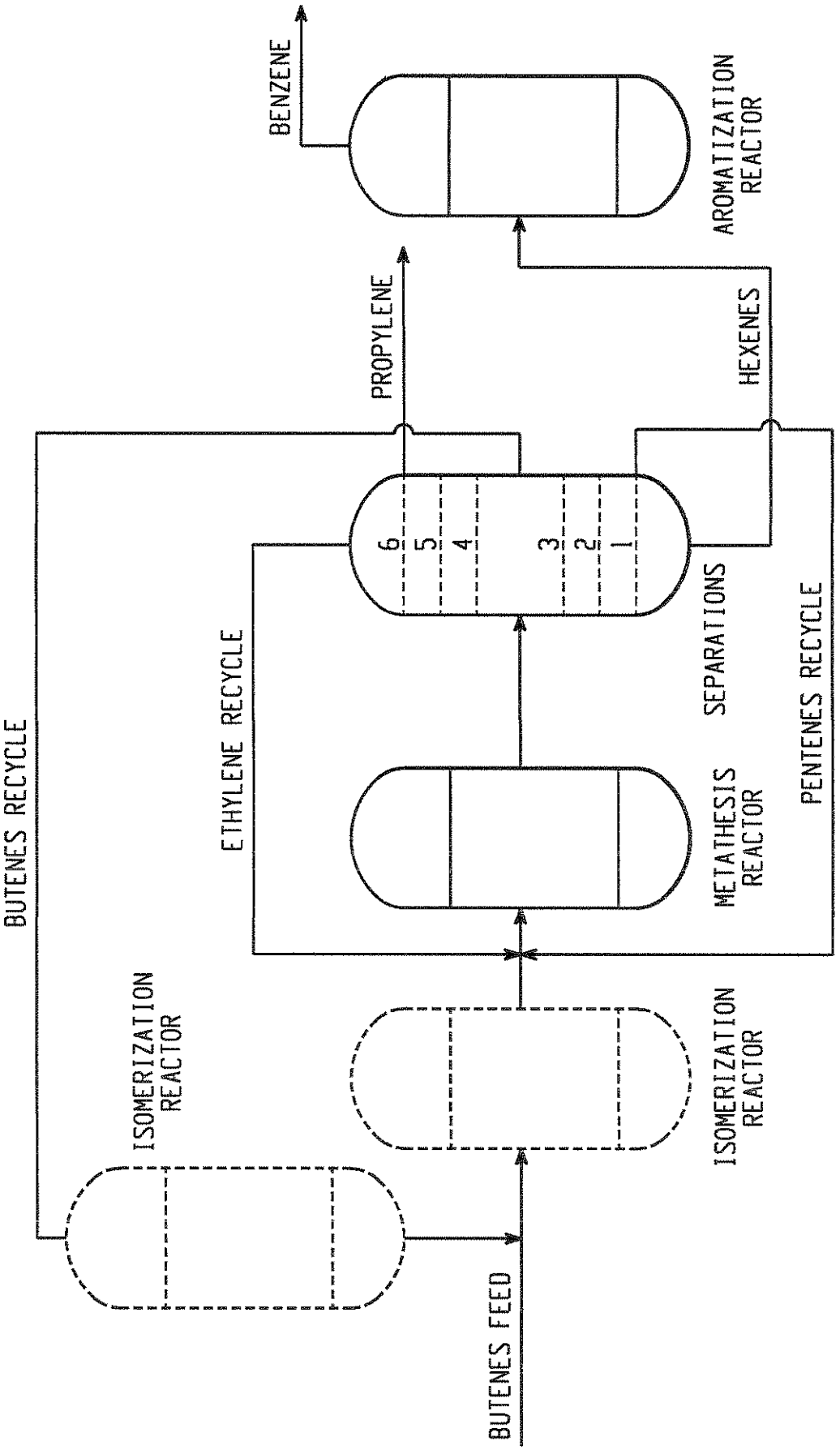
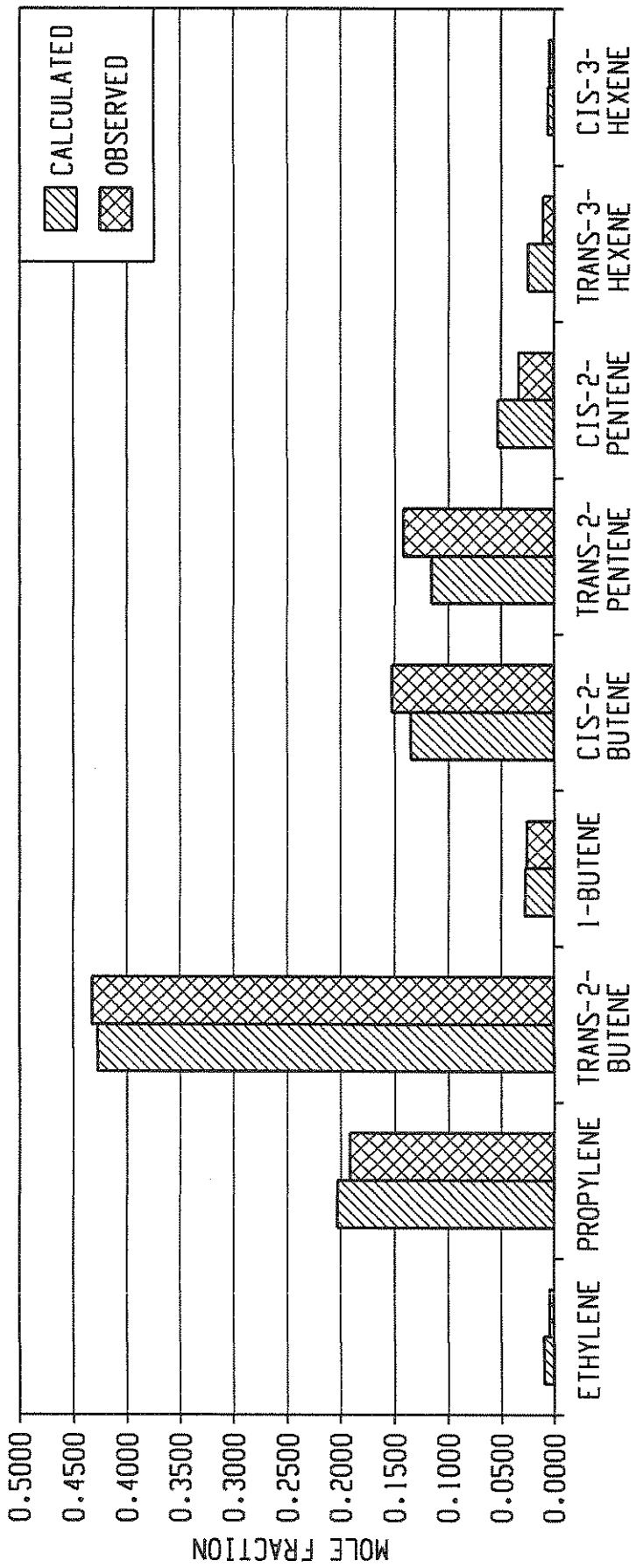

BENZENE
AROMATIZATION REACTOR
PROPYLENE
HEXENES
6
5
4
3
2
1
SEPARATIONS
METATHESIS REACTOR
ETHYLENE RECYCLE
PENTENES RECYCLE
BUTENES RECYCLE
ISOMERIZATION REACTOR
ISOMERIZATION REACTOR
BUTENES FEED

Fig. 1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OBSERVED
MOLE FRACTION
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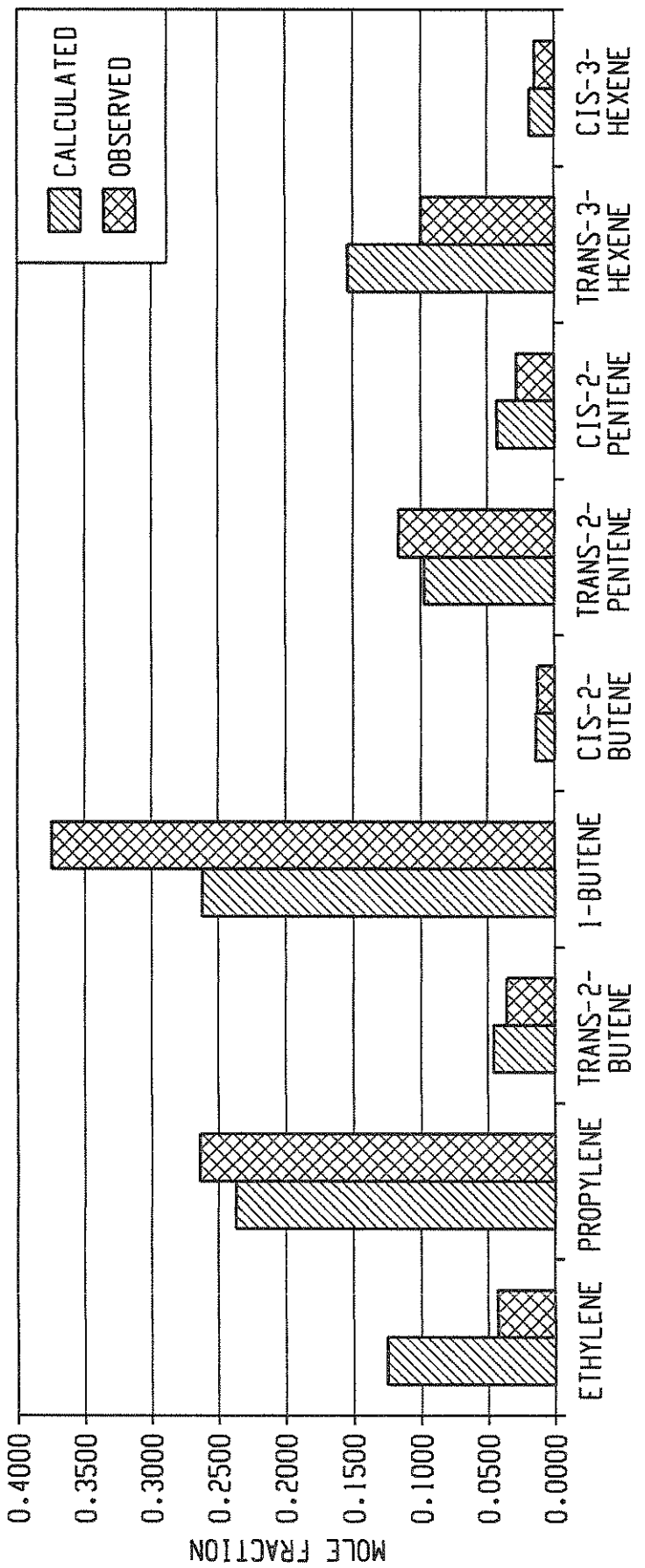
0.4500
0.4000
0.3500
0.3000
0.2500
0.2000
0.1500
0.1000
0.0500
0.0000
ETHYLENE
PROPYLENE
TRANS-2-BUTENE
1-BUTENE
CIS-2-BUTENE
TRANS-2-PENTENE
CIS-2-PENTENE
TRANS-3-HEXENE
CIS-3-HEXENE
PRODUCT

Fig. 2


CALCULATED
OBSERVED
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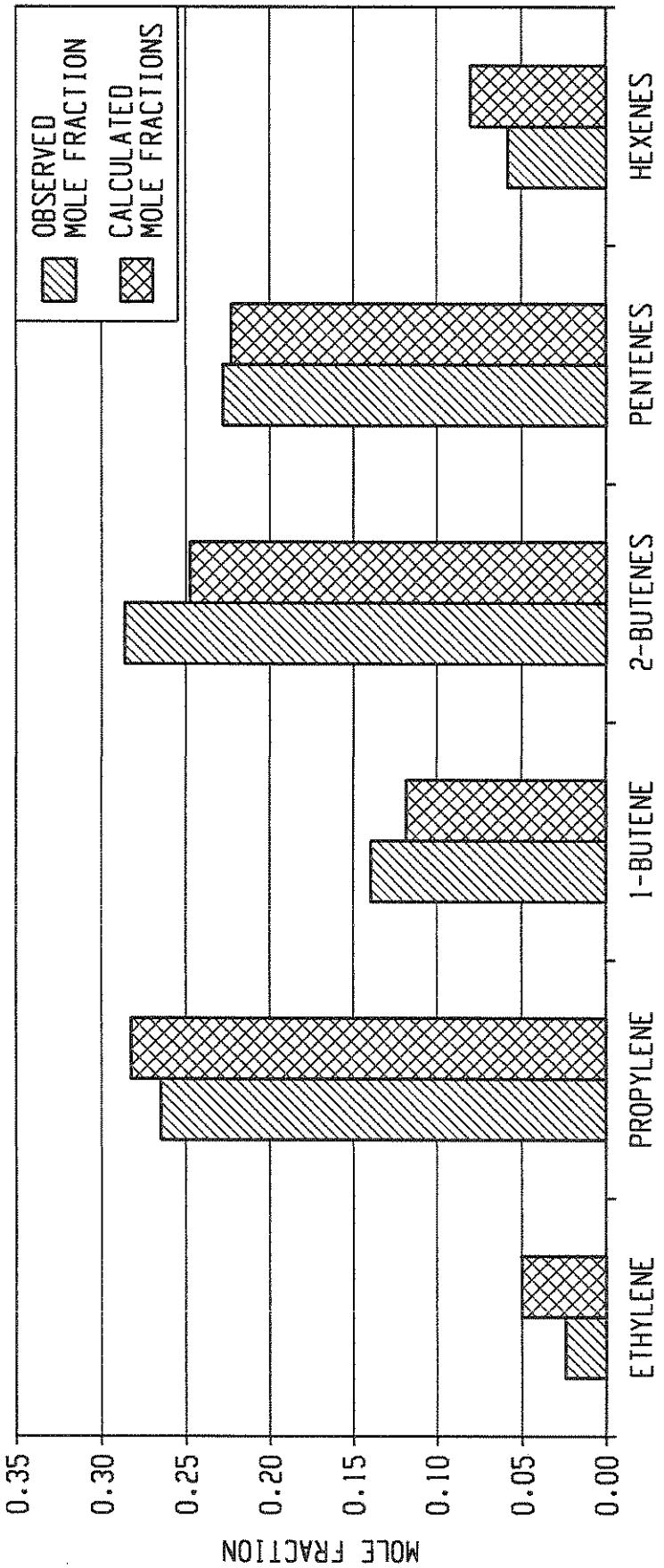
0.3500
0.3000
0.2500
0.2000
0.1500
0.1000
0.0500
0.0000
MOLE FRACTION
ETHYLENE
PROPYLENE
TRANS-2-BUTENE
1-BUTENE
CIS-2-BUTENE
TRANS-2-PENTENE
CIS-2-PENTENE
TRANS-3-HEXENE
CIS-3-HEXENE
PRODUCT

Fig. 3


OBSERVED MOLE FRACTION
CALCULATED MOLE FRACTIONS
MOLE FRACTION
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0.30
0.25
0.20
0.15
0.10
0.05
0.00
ETHYLENE
PROPYLENE
1-BUTENE
2-BUTENES
PENTENES
HEXENES
COMPOUND

Fig. 4

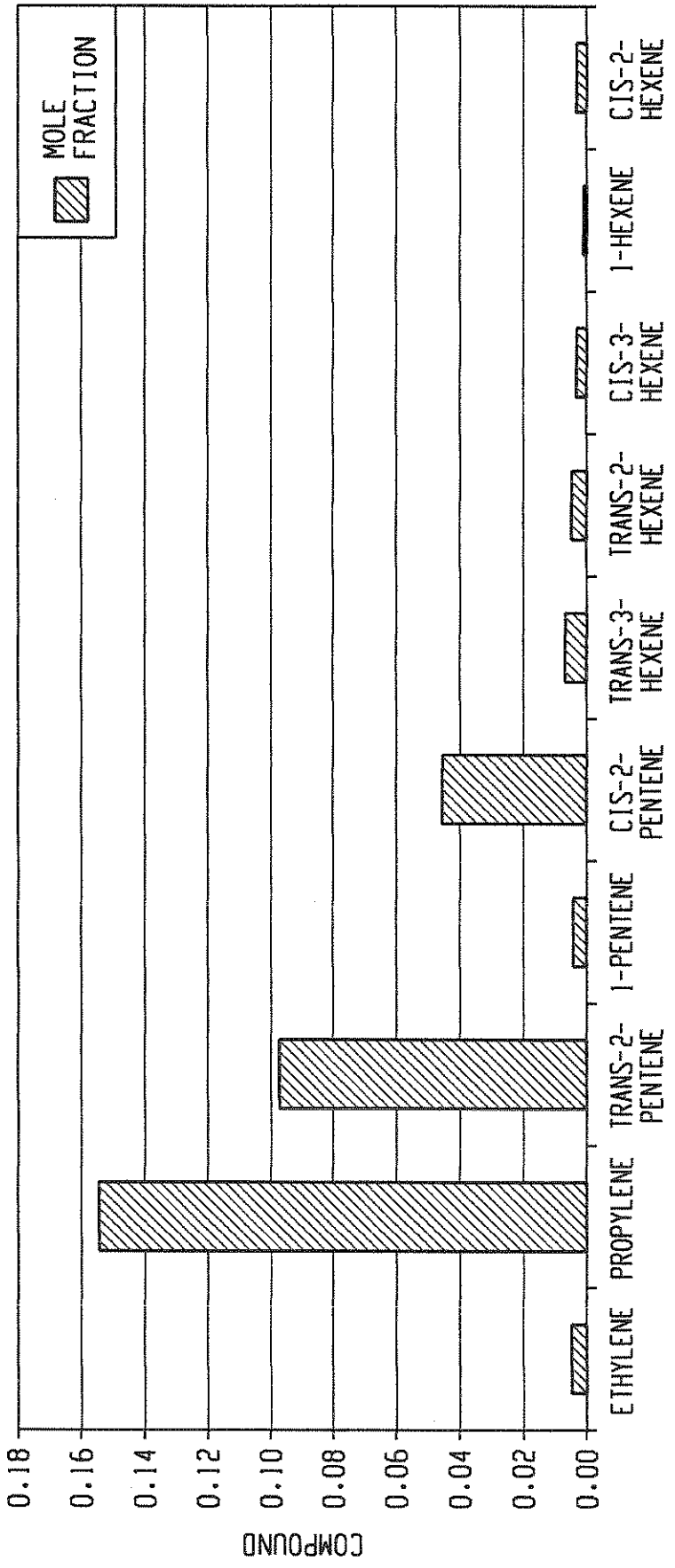
MOLE FRACTION
0.18
0.16
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
COMPOUND
ETHYLENE
PROPYLENE
TRANS-2-PENTENE
1-PENTENE
CIS-2-PENTENE
TRANS-3-HEXENE
TRANS-2-HEXENE
CIS-3-HEXENE
1-HEXENE
CIS-2-HEXENE
MOLE FRACTION

Fig. 5