

Computer Aided – Process Engineering - 2

Computer Aided
Process Engineering 가
Computer Aided Process Engineering

- R.Gani, J.P.O'Connell, "Properties and CAPE", Computers and Chem. Eng., 25 ,3 (2001)

2.2 Service / Advice Role

/

(intensive variable) (implicit or
explicit function) (target value) ,
가 가 .
(implicit function) ,
solid -liquid phase boundary (Solvent
Design) (explicit function) 가 ,
selectivity .
/ 가

- (1) () (alternative)
- (2) ()

service role ,
service/advice role . Advice role 가

가 space .

, 2

. 2

close -boiling

, close -boiling 가

close -boiling ,

multiple pressure distillation .

“advice” role 가

가 가
 가 가 space
 Horstup, Harpe, Gani flowsheet pre -solution
 analysis flowsheet synthesis algorithm
 (Computer and Chem.Eng., 23, 1395. 1999)
 advice role service role 가 advice
 role infinite dilution 가
 service role

CAPE service/advice role
 Barnicki Fair(Chemical Research, 29,421,1996)
 , Jaksland, Gani, Lien(Chem. Eng. Sci.,50, 511, 1995)
 / service/advice role
 “ ” “insight”

가 driving
 force 가
 1 driving force가
 가
 driving force가
 driving force가
 가
 가

Service/advice role CAMD (Computer -Aided
 Molecular/Mixture Design) CAMD
 CAMD CAMD
 morpholine
 CAMD “ ”

Advice role 가
 morpholine 가
 (morpholine) (가 morpholine 가
) . advice role 가
 property model service role .
 , advice role
 search space가 CAMD
 morpholine CAMD
 , 가
 morpholine , ,
 가
 advice/service role ,
 가 ,
 CAMD
 simulation) computational chemistry 가 (molecular
 가 , advice role

Issues

Service/advice CAPE “ ”
 , advice role .
 /
 ,
 가 ,
 , driving force , flowsheet 가
 Advice role .
 (consistency) 가 .

가 .
가 .
가 .
가 .