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A G^E/Equation of State Mixing Rule for Vapor-Liquid Equilibria

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摘要　 A new excess Gibbs free energy/equation of state type mixing 0rule was derived by removing the infinite pressure boundary
condition imposed by Wong and Sandler. The mixing rule was extensively tested in terms of a comprehensive data base,
consisting of 52 simple nonpolar-nonpolar, carbon dioxide containing, hydrocarbon-hydrocarbon, CFC, polar-polar, nonpolar-
polar binary and multicomponent systems. Focused on the complete predictive capability, a comparison between the Wong-Sandler
and the mixing rule proposed was conducted. The results indicate that the new mixing rule is in general superior to the Wong
-Sandler's, and the binary interaction parameter as required by the latter is removed, which reduces computing effort and is
reliable in predictions of vapor-liquid equilibria from low pressures to high pressures.

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