

MASS TRANSFER TALKIN' BLUES

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Performers' Note: These blues were performed at a pub with the author strumming an autoharp accompanying colleague-actor Carl Gall before a group of hapless Waterloo ChE students at their most vulnerable moment, i.e., just before exams. The dashes indicate points at which the performer would manage the "pregnant pause," which is the very essence of the talkin' blues.

*Hackin' thru the courses—in Chemical E.—
On my way—to the bach'lors degree—
Learned a lotta stuff—'bout chemistry—
And somethin' called—Transport Phenomeny.*

*Prof calls it Mass Transfer—
Sure don't have much of a ring to it.*

*Ploddin' thru the textbook—in Unit Ops—
An everlastin' course—without a stop—
Got a load o' problems 'n' no solution—
Couldn't solve 'em without a—lotta collusion.*

*Anyhow, Prof said knowin' where to FIND the
answer—
's a hesk of a lot more important than
knowing—
How to DO it.*

*Sweatin' it out—until I drops—
But I'll never git the hang o' them—Unit Ops—
Gas Absorption, 'n'—Distillation—
Liquid Extraction 'n'—Humidification.*

*Prof uses a lotta big words in this course—
I used to think Transport Phenomena—
Was all about trucks.*

*Crunchin' out numbers on m' Texas Eight Four—
Leaves m' brain and m' fingers—just a little bit
sore—
Hoped by now to be—pretty proficient—
But I still cain't do a—diffusion coeWcient.*

*Not too worried—
Long as none o' m' buddies figures it out—
Before the final.*

*Hittin' the textbooks—till two or three—
Doin' ev'ry problem in Three One Three—
Cain't help feeling—there oughta be—
A new mass transferless—Chemical E.*

*Human mind's too small for the like o' this—
Why cain't they crunch it up—
An' give it in smaller doses?*

4. A. S. Rappas and J. P. Pemska, U.S. Patent No. 4, 148, 816, (1979).
5. M. A. Hugues, *Commercial Solvent Systems for Metals Extraction*, P. J. Bailes Ed., U.K., (1978).
6. F. A. Cotton and G. Wilkinson, *Advanced Inorganic Chemistry*, Wiley—Interscience, London (1972).
7. W. H. Morris, "Apparatus for contacting a liquid with a liquid or a particulate solid," U.K. Patent No. 885, 50, 3, (1961).

BOOK REVIEW: Polymerization Continued from page 73.

Some of the theoretical treatment is compared with results for some polymerization processes of commercial importance, such as those for polystyrene and polyvinyl chloride. In Chapter Three the authors consider the effects of mixing on the reaction kinetics and the quality of product, while in Chapter Four thermal effects are discussed. In

Chapter Five, the authors turn their attention to the coupling of flow and the extent of reaction. This material applies not only to continuous polymerization processes but to some of the newer processes such as reaction injection molding and reactive extrusion. Finally, in Chapter Six the process of removing residual small-molecule substances such as unreacted monomer or reaction products such as water is discussed. Additional background material is given in the appendices, such as polymerization chemistry, distribution theory, thermodynamics, and chemical kinetics. The last sections make the book nearly self-contained.

The book is primarily theoretical in its content. However, the mathematics and theory presented are well within the grasp of most senior chemical engineering students. The book could also be used