

ADDITIONS AND CORRECTIONS

Nathan W. Ockwig and Tina M. Nenoff*. Membranes for Hydrogen Separation (*Chem. Rev.* **2007**, *107*, 4078.). Published on the Web October 10, 2007

This article was found to contain text that already appeared in *Ind. Eng. Chem. Res.* **2006**, *45*, 5657 and *MRS Bull.* **2006**, *31*, 750 without proper acknowledgment and citation. We jointly apologize to the articles' authors, Drs. Phair and Donelson, as well as Drs. Hägg and Quinn, respectively, for these errors.

In addition, we have taken this opportunity to reinforce our acknowledgment of the authors of various references throughout the text. At the end of this correction is a listing

by section of references that we would like to reinforce in various sections of the text.

The following two table titles were inadvertently excluded from the published manuscript:

Table 7. Hydrogen Separation Ability of First-Generation, Commercial Membranes for Gas Separations.⁴³⁴

Table 8. Hydrogen Purity Required in Industry^{380,434}

An updated and corrected version of Table 14 is also included.

Table 14. Permselective Properties of CO₂-Selective Polymeric Facilitated Transport Membranes⁴⁹⁷

membrane	other gas	CO ₂ (kPa)	CO ₂ permeance ^a	CO ₂ selectivity	ref
sulfonated polystyrene-EDAH	N ₂	2.93	4.13 × 10 ⁻⁷	600	449, 4 50
Nafion-EDAH	CH ₄	1.60	7.99 × 10 ⁻⁸	550	452
Nafion-EDAH	H ₂	101	3.63 × 10 ⁻⁷	6.8	453
Nafion-EDAH	H ₂		1.88 × 10 ⁻⁷	55	454
sulfonated polystyrene-divinyl benzene-EDAH	N ₂	4.07	4.97 × 10 ⁻⁹	524	456
EDAH-alginate	N ₂	1	1.05 × 10 ^{-8b}	50	457
EDAH-polyacrylate	N ₂	4.76	7.50 × 10 ⁻⁷	4700	458, 459
poly(acrylate-EDAH)/poly(vinyl alcohol)	N ₂	6.18	5.25 × 10 ⁻⁷	1900	460
poly(vinyl alcohol)-amino acid salts	H ₂	76.0	6.38 × 10 ⁻⁸	30	461
poly(ethylenimine)-lithium glycinate	H ₂	76.0	3.18 × 10 ⁻⁷	75	462
poly(vinyl alcohol)-tetramethylammonium fluoride	H ₂	76.0	5.33 × 10 ⁻⁸	19	463
poly(vinyl alcohol)-cesium fluoride	H ₂	45.6	5.96 × 10 ⁻⁸	60	464
cesium polyacrylate-cesium fluoride	H ₂	44.9	6.09 × 10 ⁻⁸	61	464
poly(diallyldimethylammonium fluoride)	H ₂	40.0	1.37 × 10 ⁻⁸	81	465
poly(vinylbenzyltrimethylammonium fluoride)	H ₂	42.1	4.52 × 10 ⁻⁸	87	466
poly(vinylbenzyltrimethylammonium fluoride)	H ₂	114.5	2.22 × 10 ⁻⁸	207	467
poly(vinylbenzyltrimethylammonium fluoride)-cesium fluoride	H ₂	40.8	1.93 × 10 ⁻⁷	127	468
hydrolyzed polyvinylpyrrolidone	N ₂	1.62	1.27 × 10 ⁻⁶	48	497
poly(vinylamine)-ammonium fluoride	CH ₄	200.0	3.89 × 10 ⁻⁸	1143	493
poly(vinylamine)-cesium fluoride	H ₂	42.9	5.03 × 10 ⁻⁸	120	494

^a Permeance in units of m³/(m²·s·kPa); literature *P*₀ values converted to permeance using reported membrane thicknesses. ^b Membrane thickness not reported, assumed a value of 50 μm.

Section 1

(7) Adhikari, S.; Fernando, S. *Ind. Eng. Chem. Res.* **2006**, *45*, 875.

Sections 1, 6.1–6.3

(497) Hägg, M. B.; Quinn, R. *MRS Bull.* **2006**, *31*, 750.

Sections 2–2.6

(46) Phair, J. W.; Donelson, R. *Ind. Eng. Chem. Res.* **2006**, *45*, 5657.

Sections 3.1, 3.1.2, 3.5

(190) Prabhu, A. K.; Oyama, S. T. *J. Membr. Sci.* **2000**, *176*, 233.

Section 3.1.2

(199) Nomura, M.; Ono, K.; Gopalakrishnan, S.; Sugawara, T.; Nakao, S.-I. *J. Membr. Sci.* **2005**, *251*, 151.

Sections 3.2–3.6

(248) Verweij, H.; Lin, Y. S.; Dong, J. H. *MRS Bull.* **2006**, *31*, 756.

Section 3.5.1

(244) (a) Kanezashi, M.; Fujita, T.; Asaeda, M. *Sep. Sci. Technol.* **2005**, *40*, 225. (b) Kanezashi, M.; Asaeda, M. *J. Membr. Sci.* **2006**, *271*, 86.

Sections 3.5.1, 3.5.2

(237) Yoshino, Y.; Suzuki, T.; Nair, B. N.; Taguchi, H.; Itoh, N. *J. Membr. Sci.* **2005**, *267*, 8.

Sections 4, 4.3, 4.4

(282) Bowen, T. C.; Noble, R. D.; Falconer, J. L. *J. Membr. Science* **2004**, *245*, 1, and references therein.

Section 4.1

(286) Choi, J.; Ghosh, S.; Lai, Z.; Tsapatsis, M. *Angew. Chem., Int. Ed.* **2006**, *45*, 1154.

Section 4.2

(185) Dong, J.; Liu, W.; Lin, Y. S. *AIChE J.* **2000**, *46*, 1957.

Section 4.5

(307) Hong, M.; Falconer, J. L.; Noble, R. D. *Ind. Eng. Chem. Res.* **2005**, *44*, 4035.

Sections 5, 5.1–5.7

(340) Pietrass, T. *MRS Bull.* **2006**, *31*, 765, and references therein.

Sections 5.5, 5.6

(324) Ismail, A. F.; David, L. I. B. *J. Membr. Sci.* **2001**, *193*, 1.

Sections 6, 6.1–6.3

(434) Perry, J. D.; Nagai, K.; Koros, W. J. *MRS Bull.* **2006**, *31*, 745.

CR078108L

10.1021/cr078108l

Published on Web 04/03/2009

Sophie Laurent, Delphine Forge, Marc Port, Alain Roch, Caroline Robic, Luce Vander Elst, and Robert N. Muller* Magnetic Iron Oxide Nanoparticles: Synthesis, Stabilization, Vectorization, Physicochemical Characterizations, and Biological Applications (*Chem. Rev.* **2008**, *108*, 2064.). Published on the Web June 11, 2008.

The last sentence on page 2079

“These results are interpreted as demonstrating the existence of a part in the core with a size of 4.2 nm, characterized by a perfect crystalline coherency and a more disordered surface layer”

should be replaced by

“These results are interpreted as demonstrating the existence of an imperfect crystalline coherency due to the presence of a three-dimensional lattice distortion.”

CR900197G

10.1021/cr900197g

Published on Web 06/22/2009

Rakesh Kumar Tekade, Palanirajan Vijayaraj Kumar, and Narendra Kumar Jain* Dendrimers in Oncology: An Expanding Horizon (*Chem. Rev.* **2009**, *109*, 49.). Published on the Web December 19, 2008.

On page 50, lines 11–19 contained an inaccurate sentence, as follows:

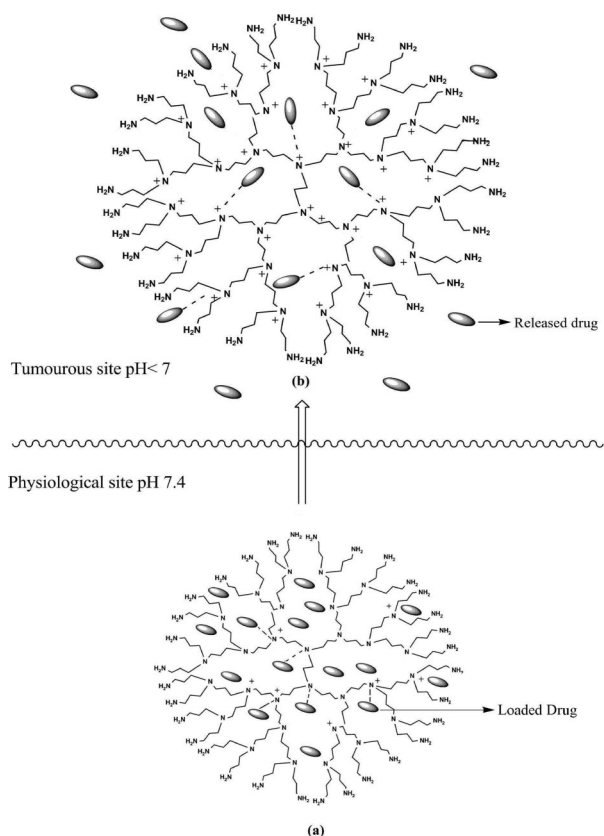


Figure 3. Mechanism of drug release following deprotonation from drug encapsulated dendrimers at tumorous site. (a) Protonated dendrimers showing retention of drug due to weak ionic interaction, pH 7.4. (b) Deprotonation of dendrimer at subneutral, pH < 7, followed by drug releasing event at tumorous site.

However it should be noted that the guest molecules were retained within the dendritic branching clefts by weak ionic

interactions with interior protonated amide groups. Therefore, the inclusion complexes separated after deprotonation of the amide groups at pH less than 7.⁶⁴ This key principle characterizes the inherent property of dendrimers, which in other ways limit the release of drugs in relatively higher proportion at tumor sites, where pH lower to neutrality exists (Figure 3).

The correct sentence should read as follows:

However, it should be noted that the guest molecules retained within the dendritic branching clefts get separated after the protonation of the dendrimer at pH less than 7.⁶⁴ This effect is probably due to the availability of sufficient open crevices inside protonated dendrimer for the release of drugs. This key principle characterizes the inherent property of dendrimers, which in other ways limit the release of drugs in relatively higher proportion at tumor sites, where pH lower than neutral exists (Figure 3).

CR900113J

10.1021/cr900113j

Published on Web 04/23/2009

Ryo Akiyama and Shū Kobayashi* “Microencapsulated” and Related Catalysts for Organic Chemistry and Organic Synthesis (*Chem. Rev.* **2009**, *109*, .)

During the publication of this manuscript, the Publisher inadvertently published Figure 16 as both Figure 16 and Figure 19. The correct Figures 16 and 19 are shown below. The electronic version of the paper has been updated to reflect the correct figures.

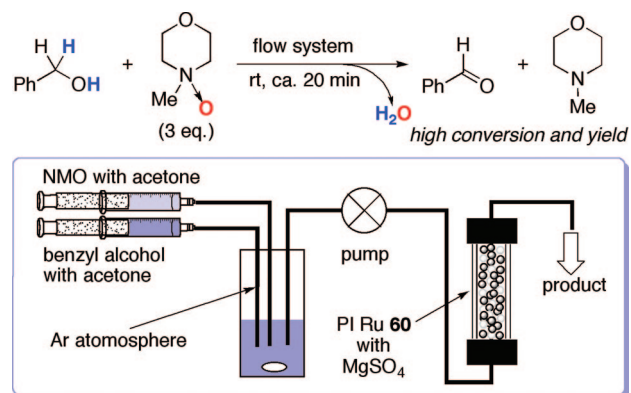


Figure 16. PI–Ru catalyzed oxidation using flow system.

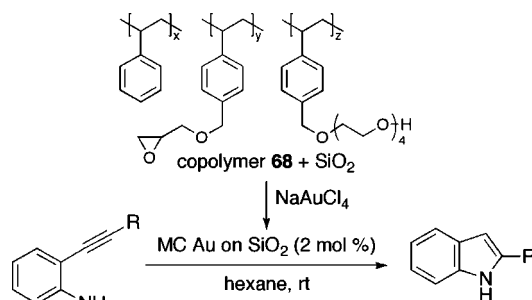


Figure 19. Novel gold(III) polymer-supported catalyst for indole library synthesis.

CR900066N

10.1021/cr900066n

Published on Web 03/11/2009