

Additions and Corrections

Observation and Photoelectron Spectroscopic Study of Novel Mono- and Diiron Oxide Molecules: FeO_y^- ($y = 1-4$) and Fe_2O_y^- ($y = 1-5$) [*J. Am. Chem. Soc.* **1996**, *118*, 5296-5301]. HONGBIN WU, SUNIL R. DESAI, AND LAI-SHENG WANG*

Tables 1 and 2 are correct as follows:

Table 1. Observed Energies and Spectroscopic Constants for FeO_y ($y = 1-4$) from the Photoelectron Spectra of the Anions

| | state | Be (eV) | term value (eV) ^b | vibrational freq (cm ⁻¹) ^b |
|------------------|-------|-----------------------|------------------------------|---|
| FeO | X | 1.50 (4) | 0 | 950 (80) |
| | A | 1.98 (4) | 0.48 (2) | |
| | B | 2.36 (4) | 0.86 (2) | |
| | C | 2.56 (4) | 1.06 (2) | 800 (60) |
| | D | 3.39 (6) | 1.89 (3) | 850 (90) |
| FeO ₂ | X | 2.36 (3) | 0 | |
| | A | 3.31 (6) ^a | 0.95 (4) | |
| FeO ₃ | X | 3.26 (4) | 0 | 850 (50) |
| | A | 3.81 (4) | 0.55 (2) | 850 (50) |
| FeO ₄ | X | 3.30 (4) | 0 | 920 (50) |
| | A | 3.84 (4) | 0.54 (2) | 850 (50) |

^a Estimated adiabatic binding energy. The vertical binding energy is 3.46 eV as determined from the band maximum. ^b Relative energies can be determined more accurately.

Table 2. Observed Energies and Spectroscopic Constants for Fe_2O_y ($y = 1-5$) from the Photoelectron Spectra of the Anions

| | state | BE (eV) | term value (eV) ^b | vibrational freq (cm ⁻¹) ^b |
|--------------------------------|-------|-----------------------|------------------------------|---|
| Fe ₂ O | X | 1.63 (4) | 0 | |
| | A | 2.02 (6) | 0.39 (3) | |
| Fe ₂ O ₂ | X | 2.36 (5) | 0 | 670 (70) |
| | A | 2.80 (7) ^a | 0.44 (5) | |
| Fe ₂ O ₃ | X | 3.06 (4) | 0 | 810 (100) |
| | A | 3.31 (7) ^a | 0.25 (5) | 650 (80) |
| Fe ₂ O ₄ | X | 3.56 (4) | 0 | 710 (60) |
| | A | 3.74 (4) | 0.18 (2) | 720 (60) |
| Fe ₂ O ₅ | X | 3.88 (4) | 0 | 750 (50) |
| | A | 4.06 (5) | 0.18 (2) | 790 (60) |

^a Estimated binding energy. The spectrum is complicated by the presence of another isomer. ^b Relative energies can be determined more accurately.

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Book Reviews

Packed Column SFC. RSC Chromatography Monographs. By T. A. Berger (Berger Instruments). The Royal Society of Chemistry: Cambridge, U.K. 1995. xiv + 251 pp. £45.00. ISBN 0-85404-500-7.

The monograph *Packed Column SFC* starts by placing the packed column supercritical fluid chromatography in perspective with other separation techniques. The author introduces spidergrams which clearly visualize the advantages and limitations of each technique. A particularly clear case is made when comparing packed and capillary versions of the SFC technique. The following chapter on hardware aspects is very short and focused on basic concepts. Physical aspects of the mobile and stationary phases are discussed in much more detail. The author does not use equations but rather focuses on visual presentation using graphs. The strong point of the book are chapters related to practice of packed column SFC. The effect of instrumental parameters on retention, selectivity, and efficiency are described in detail followed by principles behind phase selection and finally by systematic

method development. Another important part of the book, about 100 pages in total, includes chapters on applications covering pharmaceuticals, chiral separations, agricultural chemicals, petroleum products, and polymeric materials. There are plenty of interesting examples of chromatograms included in those chapters based on more established works as well as more recent references.

In summary, the book is clearly directed to practitioners of chromatography to make them more aware about the capabilities of the packed column SFC and its operation. It is a very easy book to read primarily because of the "common sense" approach by the author. The main points are clearly highlighted.

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