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Volume 33

INDEX OF THE PROCEEDINGS

PREFACE

More than 2100 papers were submitted by the Governments, specialized agencies, and the International Atomic Energy Agency, which participated in the Second United Nations International Conference on the Peaceful Uses of Atomic Energy, held at Geneva in September 1958. These papers together with the records of the sessions have been published, in English, in a series of thirty-two volumes which constitute the official Proceedings of the Conference.

The United Nations has also published abbreviated French and Spanish editions of the Proceedings which total thirteen volumes in each edition. They consist of all the Conference papers in the language of the edition, the complete text of the orally-presented papers, the complete text of the one hundred and nine thermonuclear fusion papers, additional selected papers, and the records of the sessions. A similar abbreviated edition is being published in Russian by the Government of the Union of Soviet Socialist Republics.

A list of the titles and prices of the volumes in each of the editions published by the United Nations is included in this volume, which is the index volume of the Proceedings. Prices are quoted in US dollars, but the volumes may be purchased in any national currency. This volume also includes, for the English edition only, a subject index, a numerical index, an author index and a list of errata.

The subject index was prepared at Battelle Memorial Institute, Columbus, Ohio, by Joseph Cooper and his staff. Members of Battelle's scientific staff gave invaluable guidance during the compilation of the index. Particular attention was devoted to the index by: Dr. Charles T. Brown and Dr. Mary Jane Oestmann (Radioisotopes and Radiation Division); Mr. Reynolds C. Overbeck (Biosciences Division); Dr. George W. P. Rengstorff (Physical Metallurgy Division); Dr. Charles B. Sclar (Structural Chemistry Division); and Mr. G. Ray Smithson Jr. (Minerals Beneficiation Division).

The numerical index, which was prepared by the United Nations Headquarters Library, lists the individual papers of the Proceedings serially, omitting the numbers of those papers which were withdrawn by Governments before the Conference. The arrangement of the index is self-explanatory except for the use of the letters F, R or S which appear in parentheses following some of the titles. These letters indicate the existence of a published version of the paper in French, Russian or Spanish. French and Spanish texts may be found in the corresponding series given in the list of volumes. In both editions, Volume 1 contains, as Annex 3, a complete numerical list of papers with volume numbers. Russian texts appear in the publication of the Government of the Union of Soviet Socialist Republics mentioned above.

The author index was also prepared by the United Nations Headquarters Library. Again, the arrangement is self-explanatory except for some possible confusion concerning the spelling of the names of Russian authors. There are in the Proceedings a number of inconsistencies in the transliteration of these names. In such cases, the names are entered in the index in the form in which they appear in the volume concerned, followed by the corrected version enclosed in brackets. Where the corrected version is substantially different from the spelling originally used, or where it does not fall alphabetically adjacent to the original entry, the corrected version is also entered separately in its proper alphabetical place.

A number of technical and typographical errors have been noted in the thirty-two substantive volumes of the Proceedings. Those called to the attention of the editor prior to the publication of this index volume are listed in the errata in the final section of this volume.

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Zobel, W.	P/670	*15*: 366
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ERRATA

Volume 3. Processing of Raw Materials

Vol. and Page	
3: 98	Left column, line 29. Change equation to read: $V = n_i\bar{v}$; $M = n_k\bar{m}$; $L = n_j\bar{L}$.
3: 103	Conclusion, line 8. Delete "has only a formalistic character". Insert "does not have a formal character".
3: 367	First column, last equation. Denominator should read: $k_1 P_{O_2}{}^{1/2} + k_2(C_S - C)$.
3: 469	Fig. 1 caption. A more accurate caption would be, "Log $D°$ *vs.* log $a_{H_2PO_4}$, where $D°$ is the distribution coefficient of uranium at constant resin-ligand activity, and $a_{H_2PO_4}$ the phosphate ligand activity in solution; . . ."

Volume 4. Production of Nuclear Materials and Isotopes

4: 447	Column 1, line 23. Change title to read "*Isotope Separation by Electromagnetic Separators in the Soviet Union*".
4: 449	Column 2, ref. 1. Change title to read "*Influence of Electric Fields in Ion Beams on Electromagnetic Separation of Stable Isotopes*".
4: 507	Column 2, line 11. Change "Trial" to "Trail".
4: 538	Table 3, II, (*b*) 1. Change power cost from "0.150" to "0.130".

Volume 5. Properties of Reactor Materials

5: viii	Table of Contents, line 19, should read "P/1890 Kittel, Paine . . ."
5: 586	Column 2, ref. 11. Change title to read "*Influence of the Structure and Properties of Uranium on Its Behaviour under Irradiation*".

Volume 6. Basic Metallurgy and Fabrication of Fuels

6: 250, top	Change "P/989" to read "P/998".
6: 630, top	Change "P/2" to read "P/2380".
6: 655, top	Change "P/1931" to read "P/193".

Volume 7. Reactor Technology

7: 166, title	Change "UO" to "UO_2".
7: 250	List of authors, last author. Should read "J. H. W. Simmons".

Volume 8. Nuclear Power Plants, Part 1

8: 134	List of authors. Change "P. Duquesne" to read "P. Dequenes".

Volume 9. Nuclear Power Plants, Part 2

9: 299	Left column, Fig. 7. Transpose labels of the abscissae and ordinates. Right column, line 2 below Fig. 8. Change to read ". . . be just critical in the hot condition. With an . . ." Right column, un-numbered table, lines 12 and 13. Should read "Reactivity absorption due to uranium temperature (300°K to 1300°K) . . . . . −2%".

Vol. and Page

9: 300 Left column, Figs. 9 and 10, captions. Change "Reactor 18" to read "Reactor 1".

Right column, Fig. 12. Label the abscissae "Days" and the ordinate "Per cent excess reactivity".

Volume 10. Research Reactors

10: 4, 6, 8 Running head. Delete "F. W. Fenning *et al.*" Insert "K. Q. Bagley *et al.*"

10: 220 Line 6, below Fig. 6a. Should read ". . . does not vary significantly with the surface temperature . . ."

10: 221 Fig. 8, label for solid line. Change to read: "$T \cdot \rho = \tau(\rho)$ calculated by inhour formula".

Fig. 8, left center. Change to read:
"$\ln [\tau(0) \times 10^3] = 4.53$; $\tau(0) = 0.0925 = \sum_i \beta_i \tau_i$".

Fig. 8, right center. Change to read: "$\ln [\tau(\rho) \times 10^3]$".

10: 222 Left column, line 20. Change to read:
"$\ln (T\rho) = \ln \tau(\rho) = \ln \tau_0 - \epsilon\rho$".

Left column, line 24. Delete "0.935 sec." Insert "0.0925 sec.".

Right column, line 8. Equation should read: "$T_\mu = \bar{T}_{ma} - \bar{T}_{ma}(0)$".

Right column, line 10: Center the symbol δ.

10: 223 Left column, last line of conclusions. Change to read ". . . temperature coefficient, α_m."

Right column. Glossary. Change units on items as follows:

N = neutron density, n/cm^3
C_i = concentration of delayed neutron precursors, nuclei/cm^3
$\gamma' = \frac{[P]}{[N]}, \frac{\text{kw}}{\text{n/cm}^3}$
C_a = specific heat, kwh/kg°C.

Volume 12. Reactor Physics

12: 404, 406, 408, 410, 412 Running head. Delete "Vol. 12", insert "P/600".

Volume 18. Waste Treatment and Environmental Aspects of Atomic Energy

18: 567 Left column, line 13. Should read: "We found 4 energies (0.3, 1.4, 2.7 and 3.8 Mev)".

Right column, line 2. Change "3.0" to "3.8".

Right column, line 6. Change "3.0" to "3.5".

Right column, line 7. Change "3.0" to "3.5".

Right column, line 10. Change "2.72" to "2.7".

Right column, line 14. Change "1.10, 2.0 and 2.5" to "1.1, 2.1 and 2.8".

Fig. 6. Change "E = 3.0 Mev" to "E = 0.3 Mev" and change "E = 0.3 Mev" to "E = 3.8 Mev".

Fig. 7. Change "E = 3.0 Mev" to "E = 3.5 Mev".

Volume 19. The Use of Isotopes: Industrial Use

19: 72 Right column, table. The table should read:

Cobalt-60	Over 190,000 curies
Carbon-14	200 curies
Phosphorus-32	1,100 curies
Sulphur-35	900 curies
Iodine-131	1,200 curies
Gold-198	1,000 curies
Iridium-192	800 curies
Caesium-137	1,500 curies
Thulium-170	750 curies

Volume 23. Experience in Radiological Protection

Vol. and Page	
23: 138	Column 2, line 12. Delete "19 cps/μc and 46 cps/μc" and replace with "46 cps/μc and 19 cps/μc".
23: 139	Table 3, heading, line 5. Change to read "S: total net counting rate . . ."
	Table 3, heading, column 6. Change "S" to "S_0".
	Table 3, column 7. Change "20" to "50".
	To be added under the heading "Acknowledgement", following "Conclusions": "The author wishes to express his sincere thanks to Dr. R. H. Chamberlain, Dr. J. Hale, Mr. R. Gorson and Mr. D. Kusner, Philadelphia, and Dr. E. C. Anderson, Dr. M. Van Dilla and Mr. J. D. Perrings, Los Alamos, for making available the facilities of their laboratories and for their most valuable support throughout the course of the work."

Volume 26. Isotopes in Medicine

26: 88	Fig. 6. Substitute K_A for K_V.