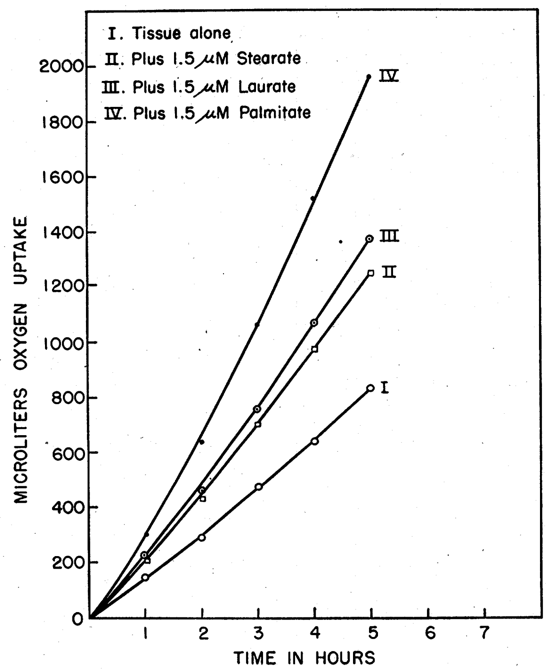

FIG. 2. The system was similar to that of Fig. 1 except that the tissue preparation had been autoclaved. The "zero" reading was taken after a 20-hr induction period.

usually associated with autoxidation of unsaturated fatty acids. It will be observed that the induction period is increased by compounds (pyrogallol, hydroquinone, and thymol) known to be antioxidants for an autoxidizing system. By determining bacterial contamination on agar plates at various times during the incubation, we have shown that the increased oxygen uptake at 4–8 hr is not due to bacterial growth.

The oxidation illustrated in Fig. 1 has been conclusively shown not to be enzymatic, since it is possible to repeat this curve in nearly exact duplication on a tissue preparation that had been autoclaved for 15 min at 15 lbs pressure. This also rules out the possibility that a new compound is being enzymatically formed during the induction period, which might then be rapidly oxidized during the later stages of the experiment. Even with this autoclaved preparation, the addition of fatty acids (1.5 μM octanoate, laurate, stearate, or palmitate) will increase the extent of autoxidation during its terminal phases. If the autoclaved system is allowed to incubate in the Warburg flasks at 37.5° C for 20 hr before shaking is begun and manometer readings are taken, the data shown in Fig. 2 are obtained. This figure corresponds closely to that in the report by Ellman and McLaren. The extent of oxygen uptake is substantially greater than that usually considered as being due to respiratory enzyme systems in equivalent tissue preparations. Additional experiments have shown that the oxidation does not require the presence of ATP or magnesium ions, as does the fatty acid oxidase system.

The fact observed here (as well as by Ellman and McLaren) that fatty acids increase the oxygen consumption of this system cannot therefore be interpreted as being due to a fatty acid oxidase, but must be considered as affecting the extent of autoxidation of the system. The mechanism by which added fatty acids increase the extent of autoxidation is not known; however, one might speculate that a mutual solubility effect with the unsaturated constituents is brought about, thus placing these unsaturated components in a more favorable position for autoxidation.

In conclusion, we should like to point out that the oxidation observed in lactating mammary gland tissue is due to autoxidation and not to a fatty acid oxidase, and that observed in frozen poultry fat (*1*) appears to be of the same type.

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Concerning Orthography of Scientific Names

Jiří Paclt

Bratislava, Czechoslovakia

Pierre Bonnet (France) proposed quite recently (*1*) that the following paragraph should be added to the Appendix to the *International Rules of Zoological Nomenclature*:

Paragraph "F" entitled "Transcription of the Roman v and i:" "The letters v and i become u and i before a consonant, and v and/or j before a vowel. Examples: **urbs**, **ventus**, **illustris**, **imperialis** (in the former event); **dives**, **ventus**, **jugum**, **jucundis** (in the latter case)."[1]

First, some inexactness in the above proposal must be mentioned. Should the letters **v** and **i** become respectively, **v** and **j** before a vowel (*sic*!), then the words imperialis (quoted as an example, *ut supra*), Equus, conspicuus, tenuis, etc., are to be written imperjalis, Eqvus, conspicvus, tenvis, etc. This is surely not intended by the author of the proposal. Accordingly, the dicta "before a consonant" (I) and "before a vowel" (II) are to be completed as follows: "Before a consonant and, in addition, before a vowel at the ending of a syllable" (I); "before a vowel at the beginning of a syllable" (II).

Unfortunately, these amendments of the original dicta of Professor Bonnet cause serious trouble if we consider the transcription of Greek diphthongs like αι, ει, οι, υι, αυ, ευ, followed by a vowel. How are names such as Aglaia, Αγλαια, Meioneurites, Μειονεύριτης, Oiorhinus, Οιὀρρινός, Euonymus, Ευωνυμος, Evetria, Εὐετηρία to be spelled in that case? The philologically correct spellings of these names would be: Aglaea, Meoneurites (better than Mioneurites), Oeorhinus, Euonymus, and Eueteria.

According to Art. 70 of the *International Rules of*

[1] The original text in French put here into English.

Botanical Nomenclature and Art. 19 of the *International Rules of Zoological Nomenclature,* the original spelling of a name must be retained, except in the case of a typographic error or of a clearly unintentional orthographic error (error of transcription, a *lapsus calami*). When this rule is applied to the abovementioned examples, we find it necessary to use the original forms Aglaia, Meioneurites, Oiorhinus, Euonymus, Evetria.

It may be proposed, however, to authors of new names that, owing to the requirement of euphony, the following suggestions should be regarded in the future:

1. The diphthong ει be transliterated before a vowel as e, and before a consonant as i.
2. The diphthongs αι and οι be still transliterated as ae and oe, respectively.
3. The diphthong υι be transliterated as yi, e.g., ὀργυιά, orgyia, μυῖα, myia.
4. The diphthong αυ be transliterated before a vowel as av, and before a consonant as au.
5. The diphthong ευ be transliterated before a vowel as ev, and before a consonant as eu, e.g., εὐεύρετος, eveuretus.
6. The diphthong ου be still transliterated as u (contrary to a proposal by Höfker followed by Valckenier Suringar [2].

The question of writing the simple letters v (u) and i (j) being of a typographic rather than an orthographic nature, we may use the rules of transcription both prospectively and retrospectively, provided that a proposal for the amended version of the respective paragraphs is accepted. Such minor additions to the *Codes* would bring the official biological nomenclature in greater compliance with practice.

On the other hand, some rules of the transliteration of Greek diphthongs cannot have any power to change the original orthography of names, and may only be considered as being a prospective but nonretroactive recommendation.

References

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Probable Extreme Age of Pegmatites from Southern Rhodesia[1]

L. H. Ahrens and A. M. Macgregor

Department of Geology, Massachusetts Institute of Technology, Cambridge, and Rhodesian Geological Survey

The relative ages of the granite intrusives which, by and large, comprise the vast basement shield areas of the earth's crust, have been a cause for much investigation. The history of these basement-complex plutonics is extensive, and batholithic intrusion may extend over a period of as much as $1{,}000 \times 10^6$ years. For example, in North America, many of the younger masses have ages of about 700–$1{,}000 \times 10^6$ years, whereas in one area (southeastern Manitoba) evidence (*1, 2*) seems conclusive that the age of pegmatites is $2{,}000 \times 10^6$ years or more. The latter area represents one of the oldest on the earth's crust thus far dated.

In southern Africa, granite and ortho-gneiss basement rocks—locally known as the "Old Granite"—are well exposed along east and west coasts; in the central area the "Old Granite" is usually well covered. Along the west coast (South-West Africa and northern Cape Province) a few age determinations have been made by either lead or strontium methods (*3, 4*). These ages, some of which are only approximate, range from 700 to $1{,}100 \times 10^6$ years; none is extremely old. Stretching northward from Natal, the eastern "Old Granite" is exposed in Swaziland, eastern Transvaal, and particularly in Southern Rhodesia. Here some of the pegmatites carry lepidolite, the ages of nine of which have been determined (Table 1) by the strontium method. The method of analysis is basically the same

TABLE 1

STRONTIUM AGE DETERMINATIONS ON NINE LEPIDOLITE SPECIMENS FROM SOUTHERN RHODESIA*

Location	Years ($\times 10^6$)
1 Pope Tantalum Mine, 11 miles east of Salisbury (Large mauve flakes)	2,000 1,900 2,500 2,100 2,350
Mean	2,150 ± 200
2 15 miles NNE of Salisbury (Pale, compact)	2,300 2,200 1,750 2,700 2,200
Mean	2,200 ± 200
3 Lutope Tin Mine, Wankie District (Deep-purple, medium-grained)	2,050 2,100 2,200 2,100 2,100
Mean	2,100 ± 200
4 Odzi District (Light-mauve, medium-grained)	2,000 2,000 1,950 2,450 1,950
Mean	2,100 ± 200
5 Antelope Mine (Massive, purple)	2,100 1,900 1,750 1,900 1,700
Mean	1,900 ± 200
6 South of Al Hayat Claims, Bikita Kop, Bikita District (Pale, fine-grained)	2,300 2,200 1,700 2,400
Mean	2,150 ± 200

[1] This investigation is part of a general program of spectrographic research, carried on in the Department of Geology, MIT, under contract with the Office of Naval Research, Washington, D. C.