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NOTE ON DISSOLVED ELEMENTAL CONTENTS OF THE ZAIRE RIVER

by

M. MEYBECK
(Laboratoire de Géologie, École Normale Supérieure, Paris, France)

The Zaire river has the second water discharge to the ocean after the Amazon but still ahead of the Orinoco and the Yang Tse Kiang (MEYBECK, 1976). Despite its importance on the geochemical input from rivers to the ocean the Zaire river was so far unknown except for one single major element analysis (SYMOENS, 1968). The November 1976 cruise to the area (*cf.* EISMA & VAN BENNEKOM, 1978) has partially filled that gap.

The concentrations compiled in Table I generally give the average values of two samples taken November 8 and 9, 1976. Due to its very regular, though bimodal, water regime it is unlikely that the water quality of the Zaire in other seasons differs much from the values presented here.

As it is generally observed for other African rivers (LIVINGSTONE, 1963), the Zaire water is much more dilute than the world average except for silica. This will be due to the combined effects of the low relief of the watershed, of the equatorial forest in the northern part of the basin and of the savanna in the southern part. For major elements the composition therefore, is in between savanna rivers (Parana, Zambeze, Niger) and equatorial rivers in low relief regions (lower Amazon, Guyana rivers and Orinoco). The Zaire water is relatively rich in dissolved silica which represents 30% of the total dissolved solids. This proportion is characteristic for tropical waters specially in regions of crystalline rocks.

Concerning the nutrients and the trace elements, the Zaire waters are generally very similar to the Amazon waters except for iron which is discussed by FIGUÈRES, MARTIN & MEYBECK (1978). The values are close to the world averages tabulated in Table I, though these averages are generally based on rivers of temperate and semi-arctic environments in North America, Europe, and the Soviet Union. The copper world average value, however, estimated as 10 $\mu g \cdot l^{-1}$ on the basis of Soviet Union rivers, will be much lower if the values for Amazon and Zaire were confirmed for other tropical rivers.