ADDENDUM

EMISSION SPECTRUM OF V^{3+} - α - Al_2O_3

J. Physique Lett., **38** (1977) 299

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The letter « Emission spectrum of V^{3+} - α - Al_2O_3 », *J. Physique Lett.*, **38** 299 (1977) does not mention a previous article of Z. Golschmidt, W. Low and M. Foguel entitled « Fluorescence spectrum of trivalent vanadium in corundum », *Phys. Lett.* **19** (1965) 17. Both articles report the same spectrum but the new measurements carried out in our work give more detailed information on this emission. Behaviour of the lines under stress and the absence of a measurable Jahn Teller distortion in the emitting level and in the fundamental 1A_1 level allow us to attribute this emission to the $^1E(t^2)$ level coming from the $^1E(t^2)$

level of cubic symmetry. (The other possibility was that the emitting level comes from the $^1T_2(t^2)$ level of cubic symmetry.) The time constant of the emission ($\tau = 2.5 \times 10^{-6}$ s for T < λ point of He) is very short compared to that of ruby. This is accounted for by a non-radiative decay through the 3E state originating from the fundamental $^3T_1(t^2)$ level of cubic symmetry. This explains the weak intensity observed and why the construction of the 1.2 mm (8 cm^{-1}) maser considered by Golschmidt could not be carried out.

We are indebted to Dr B. Clerjaud for the reference mentioned above.