

### 3. THE EQUATIONS DETERMINING THE MARGIN AT STATE IN THE CASE WHEN THE OCCUPATION NUMBER IS ZERO

For the reasons just given (i. e. , because we cannot solve any other problem) we shall restrict ourselves in this paper to a consideration of the case when the occupation number is zero. In this case  $\Omega_{21}$  satisfies

$$\log \Omega_{21} = 1, \quad (7)$$

the solution of which has been obtained numerically; it is approximately

$$\Omega_{21} = 2.7. \quad (8)$$

This result shows that the transition to overcivility occurs between the values 2 and 3 given by Giftcourt (1956), respectively, Bookshelf (1956), a result which should be capable of direct experimental confirmation. The author hopes to deal with this problem next Saturday afternoon.

In conclusion, I wish to record my indebtedness to Miss Canna Helpit, who carried out the laborious numerical work involved in deriving equation (8).

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[Professor John Sykes' famous spoof of Professor S Chandrasekhar delighted the 'victim', who arranged to have it printed in the format of The Astrophysical Journal. Some librarians bound it in series without noticing]