

COMMENT ON THE NOTE OF R. FRANCHOT ENTITLED
«NASCENT HYDROGEN»

BY D. TOMMASI

I have just read a note by Mr. R. Franchot¹ entitled «Nascent Hydrogen». The author of this note seems to be entirely unaware of the fact that before him—in 1877²—I studied the question whether the reducing action of hydrogen when set free from a chemical compound is due to an allotropic form of hydrogen, such as the nascent state, or whether it is due to ordinary hydrogen evolved under new thermal conditions. To determine this point I examined the majority of the reductions caused by hydrogen and usually attributed to nascent action, such as: the reduction of the chlorid, bromid and iodid of silver; of the chlorates and perchlorates; of ferric chlorid; of the nitrates; of chloral, etc., etc. From these experiments I drew the conclusion that if hydrogen in the nascent state possesses a greater affinity than under the usual conditions, this is due simply to the fact that the gas, in separating from a compound, is accompanied by the quantity of heat which is produced while the hydrogen is being set free. Consequently, nascent hydrogen is nothing else than $H + x$ calories.

In an analogous way one can explain the greater activity of substances at the moment of liberation from their compounds, or in other words, when they are in the nascent state. My chief papers on nascent hydrogen have been published in the following Journals:

Rendiconti dell' Instituto Lombardo di Milano, (1877) and (1878); Chemical News, 1879; Cosmos-les-Mondes, Paris (1879); Bull. Soc. Chim. Paris 1, 148 (1882). See also D. Tommasi: *Traité des piles électriques*.

¹Jour. Phys. Chem. 1, 75 (1896).

²D. Tommasi. *Traité théorique et pratique de l'électrochimie*, 105.