ERRATUM: Scaling Behavior of Surface Irregularity in the Molecular Domain: From Adsorption Studies to Fractal Catalysts

J. Stat. Phys. 36:699 (1984).

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- 1. The measurements shown in Fig. 2 refer to adsorption of ethanol, not tertiary amyl alcohol. Accordingly, sentences No. 2 and 4 in the second paragraph of Section 3 should be changed to: "The reference yardstick chosen was ethanol... By Eqs. (4) and (5), this implies (1), with $D = 3.04 \pm 0.05$, over the yardstick range of 23–168 Å²."
- 2. Contrary to what appears to be implied by Steinhaus in his paper and has been taken for granted in ours, the Steinhaus length of a curve, Eq. (9), is not unconditionally equal to the curve length measured with yardsticks of length r. This follows from numerical studies by M. Obert and H. Wippermann (personal communication) for a highly branched dendritic curve. Also, the theorem that in the plane a straight line intersects a D-dimensional curve in a set of dimension D-1 with probability one (P. Mattila, Ann. Acad. Sci. Fenn. Ser. AI 1:227 (1975); and references therein) implies that in Eq. (9) typically $S_1 = \cdots = S_m = \infty$ for a fully developed fractal curve (zero inner cutoff). So, the general relationship between Steinhaus length as function of the spacing r, and length measured with yardsticks of length r, is to be clarified yet. Accordingly it may turn out that the domain of validity of Eq. (10) is restricted to $D \rightarrow 2$ and nonzero inner cutoff.

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