

Erratum

Erratum to “The preparation of magnetite, goethite, hematite and maghemite of pigment quality from mill scale iron waste” [Dyes Pigments 74 (2007):161–8]

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The authors would like to acknowledge that the idea used in the introduction of this article is related to the published material (in article F. A. López, M. I. Martín, C. Pérez, A. López-Delgado and F.J. Aguacil, Removal of copper ions from aqueous solutions by a steel-making by-product, *Water Research* 2003;37:3883–3890). The contested material in our article, even though similar, is not an exact copy of that in López et al. related article (see above). We therefore, acknowledge inadvertent omission of the above reference (López et al.) in our article and wish to express our sincere apology for this.

Therefore, the first part of the introduction section, containing the corrected material and a corresponding partial list of references would read as follows:

“Stainless steel finishing operations involve several cleaning processes, which remove dust, scale, iron oxides and hydroxides [1,2]. Mill scale is a steel making by-product from steel hot rolling processes and is basically composed of iron oxides and metallic iron with variable oil and grease contents [3–5]. Its specific production is about 35–40 kg/t of hot rolled product [3,4]. The oil component in rolling mill scale makes the recycling difficult, and its direct re-use in sintering may lead to environmental pollution. Mill scale with high oil content is recycled after extracting the oil in a pretreatment stage. Coarse scale with a particle size of 0.5–5 mm and oil content of less than 1% can be returned to the sinter strand without any pretreatment. High oil content (>3%) results in increased emissions of volatile organic compounds including dioxins and can lead to problems in waste gas purification systems, e.g. glow fires in electrostatic precipitators. Because of this mill scale

needs to be pretreated before it can be re-used. Fine sludge mainly consists of very small-scale particles (0.1 mm). Since the fine particles adsorb oil to a very high degree (5–20%) this scale cannot normally be returned to the sinter strand without pretreatment [3,6]. The oil adsorption in the preceding line refers to the metallic mill scale and should not be confused with the oil absorption, pigment property, mentioned in the abstract and elsewhere in this paper. At MITTAL STEEL (former ISCOR), a steel manufacturing company in the Republic of South Africa, the bulk of mill scale waste is dumped in landfills. The continuous demand for more landfills and the leaching of some small percentages of heavy metals into soil and ground water, thus threatening the environment, highlight the need for more effective methods of waste disposal and productive utilization of mill scale”.

References

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