

# Supplementary material 1

## Characterization of a chromium-bearing carbon steel Electric Arc Furnace slag after magnetic separation to determine the potential for iron and chromium recovery

Kathy Bru <sup>1,\*</sup>, Alain Seron <sup>2</sup>, Agnieszka Morillon <sup>3</sup>, David Algermissen <sup>4</sup>, Catherine Lerouge <sup>5</sup> and Nourredine Menad <sup>6,\*</sup>

<sup>1</sup> BRGM, F-45060 Orléans, France; [k.bru@brgm.fr](mailto:k.bru@brgm.fr)

<sup>2</sup> BRGM, F-45060 Orléans, France; [a.seron@brgm.fr](mailto:a.seron@brgm.fr)

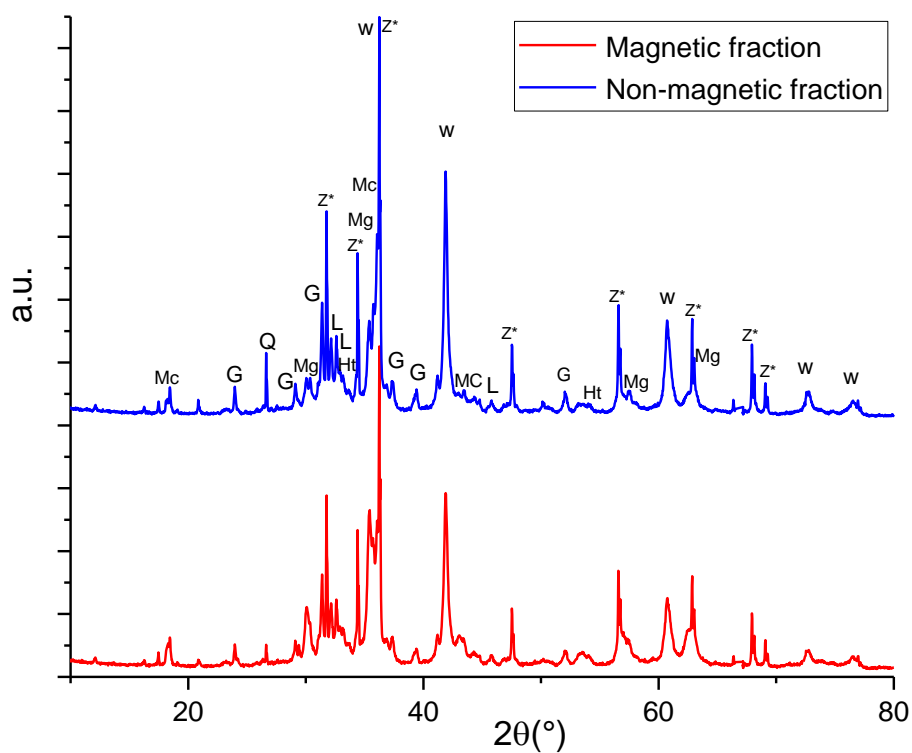
<sup>3</sup> FEhS, 47229 Duisburg, Germany; [a.morillon@fehs.de](mailto:a.morillon@fehs.de)

<sup>4</sup> FEhS, 47229 Duisburg, Germany; [d.algermissen@fehs.de](mailto:d.algermissen@fehs.de)

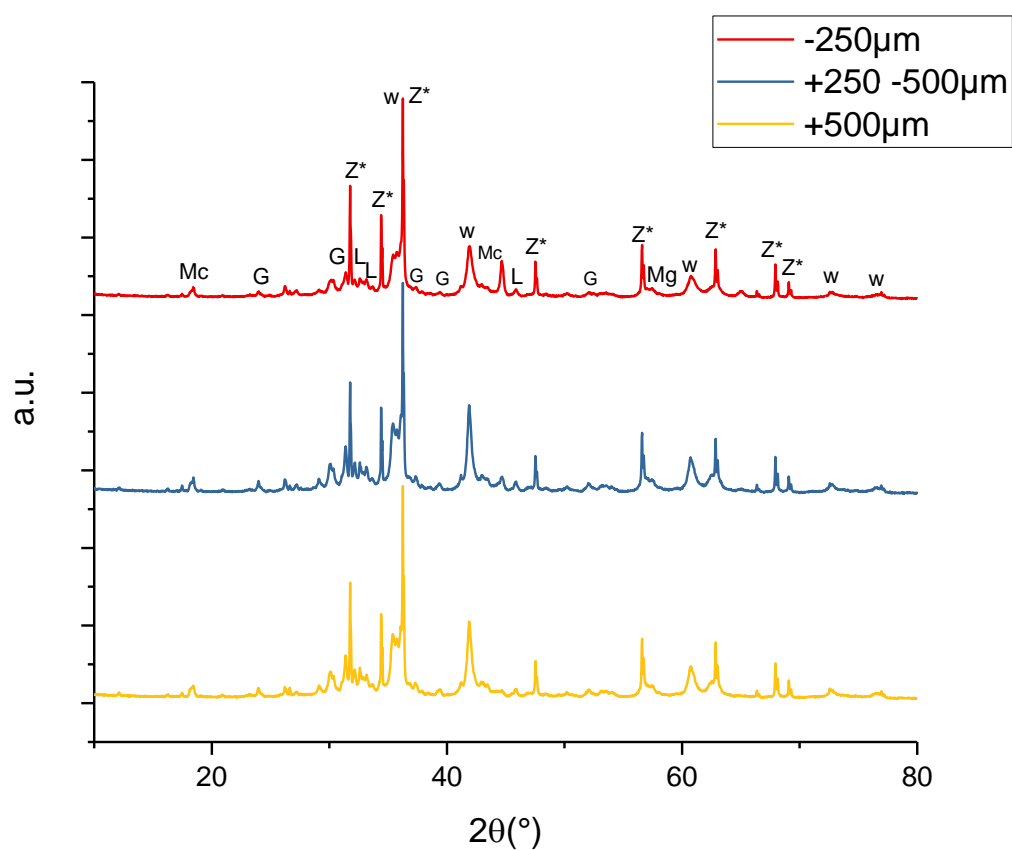
<sup>5</sup> BRGM, F-45060 Orléans, France; [c.lerouge@brgm.fr](mailto:c.lerouge@brgm.fr)

<sup>6</sup> BRGM, F-45060 Orléans, France; [n.menad@brgm.fr](mailto:n.menad@brgm.fr)

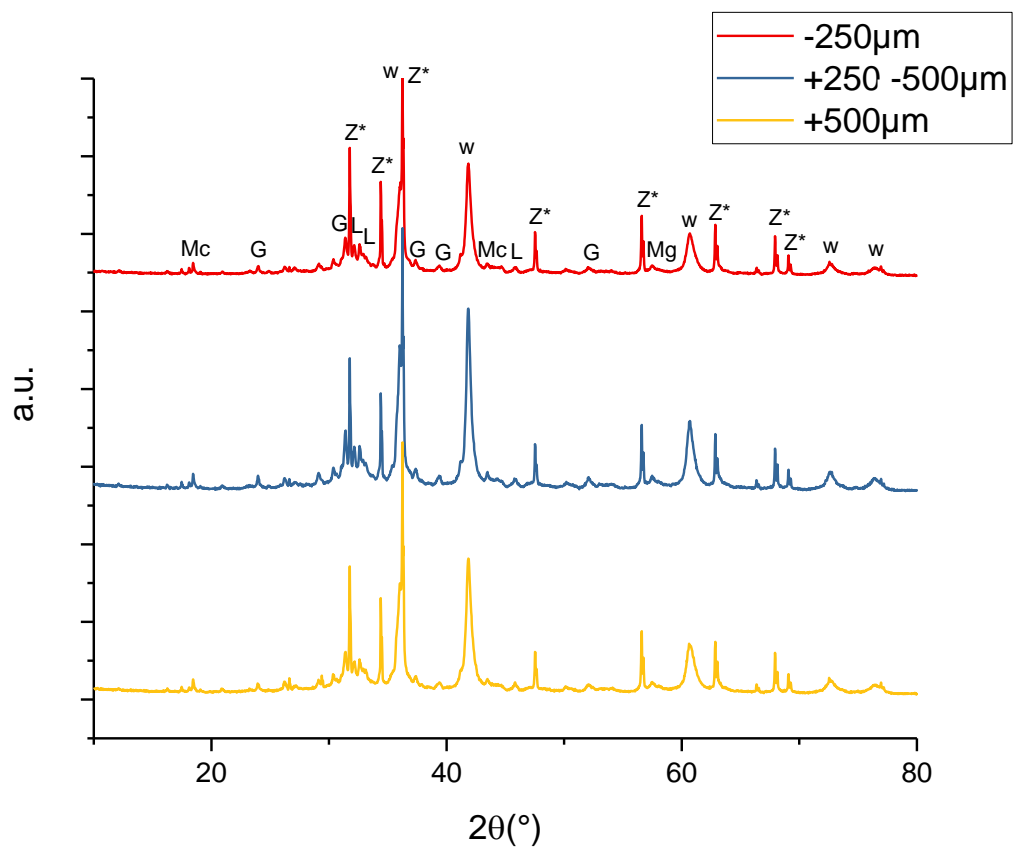
\* Correspondence: [k.bru@brgm.fr](mailto:k.bru@brgm.fr); Tel.: +33238644761



**Figure S1.** Mineral phases contained in the magnetic and non-magnetic fraction of the size fraction +1-2 mm [Mc: Magnesio-chromite, G: Gehlenite, Q: Quartz, Mg: Magnetite, L: Larnite, W: Wüstite, Ht: Hematite and Z\*: added zinc oxide] (arbitrary unit for the ordinates)



**Figure S2.** Mineral phases after attrition of the magnetic fraction during 40 minutes [Mc: Magnesio-chromite, G: Gehlenite, Q: Quartz, Mg: Magnetite, L: Larnite, W: Wüstite, Ht: Hematite and Z\*: added zinc oxide] (arbitrary unit for the ordinates)



**Figure S3.** Mineral phases after attrition of the non-magnetic fraction during 40 minutes [Mc: Magnesio-chromite, G: Gehlenite, Q: Quartz, Mg: Magnetite, L: Larnite, W: Wüstite, Ht: Hematite and Z\*: added zinc oxide] (arbitrary unit for the ordinates)