180216TSTAttachment3: List of test materials to assess WLR

CAS number, chemical formula, primary metal content, mean particle size, and surface area.

Test Material	CAS No	Formula	Metal Content (%)[a]	$D_{0.5}$ (μm)[b]	SA (m^2/g)[c]
Cobalt oxide	1308-06-1	Co_3O_4	Co (73.43)	2.7	0.92
Cobalt metal	7440-48-4	Co	Co (99.98)	3.4	2.30
Copper concentrate	N/A	N/A	Cu (23.58)	59.2	0.40
Inconel alloy	N/A	N/A	Cr (18.3), Fe (14.6), Ni (67.1)	6.1[d]	0.16[d]
Leaded brass alloy	N/A	N/A	Cu (58.45), Pb (3.22), Zn (37.75)	56.2	0.15
Nickel sulfate hexahydrate	10101-97-0	$NiSO_4 \cdot 6H_20$	Ni (23.07)	12.4[d]	0.91[d]

N/A, not applicable

[a]Composition information from Certificate of Analysis as provided by supplier. Each metal constituent within a given test material is referred to within the study as "X metal ion in Y test material", e.g., Cu in Cu concentrate.

[b]Particle size measured with laser diffraction as reported by supplier unless otherwise noted; $d_{0.5}$ corresponds to the median particle diameter from the volume (mass) distribution.

[c]Surface area measured by BET gas absorption methodology as reported by supplier unless otherwise noted.

[d]Analysis conducted by Particle Technology Labs, Ltd.