Journal of Solid State Chemistry 181 (2008) 2547

Contents lists available at ScienceDirect

Journal of Solid State Chemistry

journal homepage: www.elsevier.com/locate/jssc

Erratum

# Erratum to "Cerium effect on the phase structure, phase stability and redox properties of Ce-doped strontium ferrates" [J. Solid State Chem. 179 (2006) 3406–3419]

F. Deganello [a,*], L.F. Liotta [a], A. Longo [a], M.P. Casaletto [a], M. Scopelliti [b]

[a] Istituto per lo Studio dei Materiali Nanostrutturati del C.N.R., Sezione di Palermo, Via Ugo La Malfa 153, 90146 Palermo, Italy
[b] Dipartimento di Chimica Inorganica e Analitica "S. Cannizzaro", Università di Palermo Parco d'Orleans, Viale delle Scienze, 90128 Palermo, Italy

The publisher regrets that Tables 4 and 4bis were not formatted properly. The correct versions of these tables are shown here.

**Table 4**
Rietveld refinement results for He-treated (after cooling from 1000 °C under He flow) $Sr_{1-a}Ce_aFeO_{3-x}$ samples with different Ce contents

| Sample name | Phase composition[a] (% wt) | X-ray space group (structure), Reticular constants[b] (Å) | Crystal size (nm) | Agreement factors (%) |
|---|---|---|---|---|
| SF/He | $Sr_2Fe_2O_5$ (89.4(8))<br>$Sr_4Fe_4O_{11}$ (10.6(2)) | *Icmm* (orthorhombic) $a_0 = 5.669$; $b_0 = 15.587$; $c_0 = 5.530$<br>*Cmmm* (orthorhombic) $a_0 = 10.990$; $b_0 = 7.716$; $c_0 = 5.483$ | 177(5)<br>256(30) | $wR_p = 1.51$, $R_p = 1.20$, $R_F^2 = 8.23$ |
| SFC2/He | $Sr_{2(1-a)}Ce_{2a}Fe_2O_5$ (84.4(1))<br>$Sr_4Fe_4O_{11}$ (15.6(4)) | *Icmm* (orthorhombic) $a_0 = 5.658$; $b_0 = 15.626$; $c_0 = 5.532$<br>*Cmmm* (orthorhombic) $a_0 = 11.013$; $b_0 = 7.732$; $c_0 = 5.494$ | 173(10)<br>101(10) | $wR_p = 1.83$, $R_p = 1.35$, $R_F^2 = 7.79$ |
| SFC6/He | $Sr_{0.94}Ce_{0.06}FeO_{3-x}$ (100) | *Pm3m* (cubic) $a_0 = b_0 = c_0 = 3.909$ | 124(10) | $wR_p = 2.35$, $R_p = 1.60$, $R_F^2 = 6.10$ |
| SFC10/He | $Sr_{0.90}Ce_{0.10}FeO_{3-x}$ (100) | *Pm3m* (cubic) $a_0 = b_0 = c_0 = 3.902$ | 76(5) | $wR_p = 2.21$, $R_p = 1.43$, $R_F^2 = 5.87$ |
| SFC15/He | $Sr_{0.85}Ce_{0.15}FeO_{3-x}$ (99.0(2)) $CeO_2$ (<1) | *Pm3m* (cubic) $a_0 = b_0 = c_0 = 3.901$ | 86(5) | $wR_p = 2.23$, $R_p = 1.55$, $R_F^2 = 8.11$ |
| SFC25/He | $Sr_{0.85}Ce_{0.15}FeO_{3-x}$ (91.3(2)) $CeO_2$ (8.7(1)) | *Pm3m* (cubic) $a_0 = b_0 = c_0 = 3.899$ | 85(5) | $wR_p = 1.79$, $R_p = 1.32$, $R_F^2 = 3.80$ |

[a] The *a* values are deduced from the nominal Ce content and from the phase composition.
[b] Standard deviation for reticular constants is ±0.003 Å.

**Table 4bis**
Rietveld refinement results for $H_2$-treated (after TPR and cooling from 1000 °C under He flow) $Sr_{1-a}Ce_aFeO_{3-x}$ samples with 0 and 15 mol% Ce

| Sample name | Phase composition[a] (% wt) | X-ray space group (structure), reticular constants[b] (Å) | Crystal size (nm) | Agreement factors (%) |
|---|---|---|---|---|
| SF/$H_2$ | $Sr_3Fe_2O_6$ (88(2))<br>Fe (12(3)) | *I4/mmm* (tetragonal), $a_0 = b_0 = 3.892$; $c_0 = 20.038$<br>*Im3̄m* (cubic), $a_0 = b_0 = c_0 = 2.864$ | 100(5)<br>110(10) | $wR_p = 2.60$, $R_p = 1.98$, $R_F^2 = 6.87$ |
| SFC15/$H_2$ | $Sr_{3(1-a)}Ce_{3a}Fe_2O_6$ (83.3(1))<br>$CeO_2$ containing $Sr_3Fe_2O_6$ (5.6(5))<br>Fe (11.1(3)) | *I4/mmm* (tetragonal), $a_0 = b_0 = 3.901$; $c_0 = 20.096$<br>*I4/mmm* (tetragonal), $a_0 = b_0 = 3.852$; $c_0 = 21.232$<br>*Im3̄m* (cubic), $a_0 = b_0 = c_0 = 2.867$ | 106(5)<br>79(10)<br>126(10) | $wR_p = 2.67$, $R_p = 1.76$, $R_F^2 = 8.93$ |

[a] The *a* values are deduced from the nominal Ce content and from the phase composition.
[b] Standard deviation for reticular constants is ±0.003 Å.

DOI of original article: 10.1016/j.jssc.2006.06.027
* Corresponding author. Fax: +39 91 6809399.
*E-mail address:* francesca.deganello@ismn.cnr.it (F. Deganello).

0022-4596/$ - see front matter © 2008 Published by Elsevier Inc.
doi:10.1016/j.jssc.2008.04.011