ADDENDUM

REVISIONS / CORRECTIONS HAVE BEEN MADE FOR THE THESIS ENTITLED, "SOME INVESTIGATIONS ON THE KINETICS OF THERMAL DECOMPOSITION OF MAGNESITE" IN THE FORM OF AN ADDENDUM

CHAPTER 1 INTRODUCTION

SHOULD READ AS INSTEAD OF
i) Page 2, last line tetravalent ultraviolet
ii) Page 4, 4th Para, 1st line lend land

CHAPTER 2 KINETICS OF THE REACTION OF THE TYPE SOLID = SOLID + GAS

SHOULD READ AS INSTEAD OF
i) Page 10, k=1/t (1/c - 1/c0) k = 1/t = (1/c - 1/c0)
ii) Page 12, Equation No. 2 dx/dt = k1 P dx/dt = k2 P
iii) Page 16, 2nd para, 1st line A (solid) → B (solid) + C (gas) A (solid) B → (solid) + C (gas)

CHAPTER 3 LITERATURE REVIEW

SHOULD READ AS INSTEAD OF
i) Page 17, 4th line reactions reactions 44
ii) Page 18, Last para 1/2 (L - \sqrt[10]{1-V/100}) 1/2 (1 - \sqrt[10]{1-V/100})
iii) Page 25, Equation 1 \[3 \text{MgCO}_3 + \text{Mg(OH)}_2 + 3 \text{H}_2\text{O} = 3\text{MgCO}_3 + \text{Mg(OH)}_2 + 3 \text{H}_2\text{O}\]
iv) Page 25, Equation 2 \[3 \text{MgCO}_3 + \text{Mg(OH)}_2 + 3 \text{H}_2\text{O} = 3\text{MgCO}_3 + \text{MgO} + 3 \text{H}_2\text{O}\]
v) Page 28, 3rd para last line magnesium oxychloride. magnesium oxychloride cement.
vi) Page 29, 4th para, 4th line \([(0001) \, \text{MgCO}_3/\text{(111)} \, \text{MgO}] \, (0001) \, \text{MgCO}_3 11(111) \, \text{MgO}\)
vii) Page 29, 4th para 5th line \([(1120) \, \text{MgCO}_3/\text{(211)}\,\text{MgO}] \, (1120) \, \text{MgCO}_3 11(211)\,\text{MgO}\)
viii) Page 29, 4th para, 6th line \[(0001) \, \text{Mg(OH)}_2/\text{(111)} \, \text{MgO}, [1120] \, \text{Mg(OH)}_2/\text{(101)} \, \text{MgO}\]
ix) Page 31, ref. No. 124 Baldo, Joao B. and Bradt Richard

Baldo, Joao B., Bradt and Richard

Continued to ......(ii)


(iii)

x) Paragraphs pertaining to the following reference nos. may be deleted from the literature review, as the same are related to sintering of magnesite.


CHAPTER 4 THE OBJECT AND PLAN OF THE WORK

SHOULD READ AS

i) Page 36, 6th line Most workers 3, 6, 18, 23, 75, 93 & 101

ii) Page 36, 7th line Some 14 & 29

iii) The following paragraph may be incorporated after the last line of the Plan of the work.

In addition to the studies of the rate of weight loss, the following studies were undertaken for characterisation of all the six nos raw magnesites, which have also been elaborated in Chapter-5 Experimental.

a) Chemical analysis and density measurements  b) X-ray diffraction studies  c) IR spectra studies  d) DTA studies of all the 6 raw magnesites were carried out. Besides above SEM studies of all the raw magnesites and their decomposed products were also performed.

CHAPTER 5 EXPERIMENTAL

i) The following lines may be incorporated after 2nd line, page 37.

Six magnesites from different deposits with various impurity levels have been taken in order to get comprehensive and conclusive results.

ii) The following words are to be added after "titanium dioxide" in the 7th line of paragraph 3, page 37.

and manganese dioxide. Accordingly standard analytical procedure58 for estimation of constituents has been followed.

iii) The following line may be incorporated after 3rd line of page 38.

The depths of calcination (d) have been defined theoretically and were taken for calculation purposes.

Continued to ......(iii)
iv) The following line may be incorporated after 2nd line of page 39

Selection of pressure of pelletisation at 1350Kg/cm² has been done as this pressure is the optimum pressure for magnesite powders to form a compact body.

CHAPTER 6 RESULTS AND DISCUSSION

i) Page 42, Table 3

<table>
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<tr>
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<th>SHOULD READ AS</th>
<th>INSTEAD OF</th>
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<td>$\text{Al}_2\text{O}_3$ (Wt%)</td>
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<tr>
<td>$M_5$</td>
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</tr>
</tbody>
</table>

ii) Page 64,

\[
\frac{dW}{dt} = 4\pi K'' \left( \frac{3}{4\pi \rho} \right)^{2/3} W^{2/3}
\]

\[
\frac{dW}{dt} = 4\pi K'' \left( \frac{3}{4\pi \rho} \right)^{2/3} W^{2/3}
\]

iii) Page 64,

\[
\frac{dW}{dt} = K'' W^{2/3} \quad (\text{as} \quad K'' = 4\pi K'' \left( \frac{3}{4\pi \rho} \right)^{2/3})
\]

\[
\frac{dW}{dt} = K'' W^{2/3} \quad (\text{as} \quad K'' = 4\pi K'' \left( \frac{3}{4\pi \rho} \right)^{2/3})
\]

iv) Page 67, last but one line

Weight loss = (0.0429 - 0.0378) x 0.4994 = 0.00257

Weight loss = (0.0429 - 0.378) x 0.4994 = 0.00257