



Q3D EXTRACTOR

# Introduction To Ansys Q3d Extractor Cadfamily

**R Sandford**



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negative when heat flows from the system to the surroundings thus exothermic reactions have a negative  $\Delta h$  of reaction the word exothermic is derived from exo the greek word for outside and therme the greek word

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web in the context of a chemical reaction the term neutralization is used for a reaction between an acid and a base or alkali historically this reaction was represented as acid base alkali salt water for example  $\text{hcl naoh nacl h}_2\text{o}$

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web during this reaction the  $\text{h}^+$  ions from the acid and the  $\text{oh}^-$  ions from the alkali react together to form water as this happens energy is released which is detected by the thermometer

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 eg 1  $\text{HCl(aq)} + \text{NaOH(aq)} \rightarrow \text{NaCl(aq)} + \text{H}_2\text{O(l)}$  for which  $\Delta H = 57\text{kJ mol}^{-1}$  eg 2  $\text{HNO}_3(\text{aq}) + \text{KOH(aq)} \rightarrow \text{KNO}_3(\text{aq}) + \text{H}_2\text{O(l)}$  for which  $\Delta H = 57\text{kJ mol}^{-1}$   
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