

Supplementary material (SM)

**Analysis of Environmental Performances of Ferritization Method
for the Treatment of Copper-Ammonia Wastewater
under the Optimized Condition via RSM**

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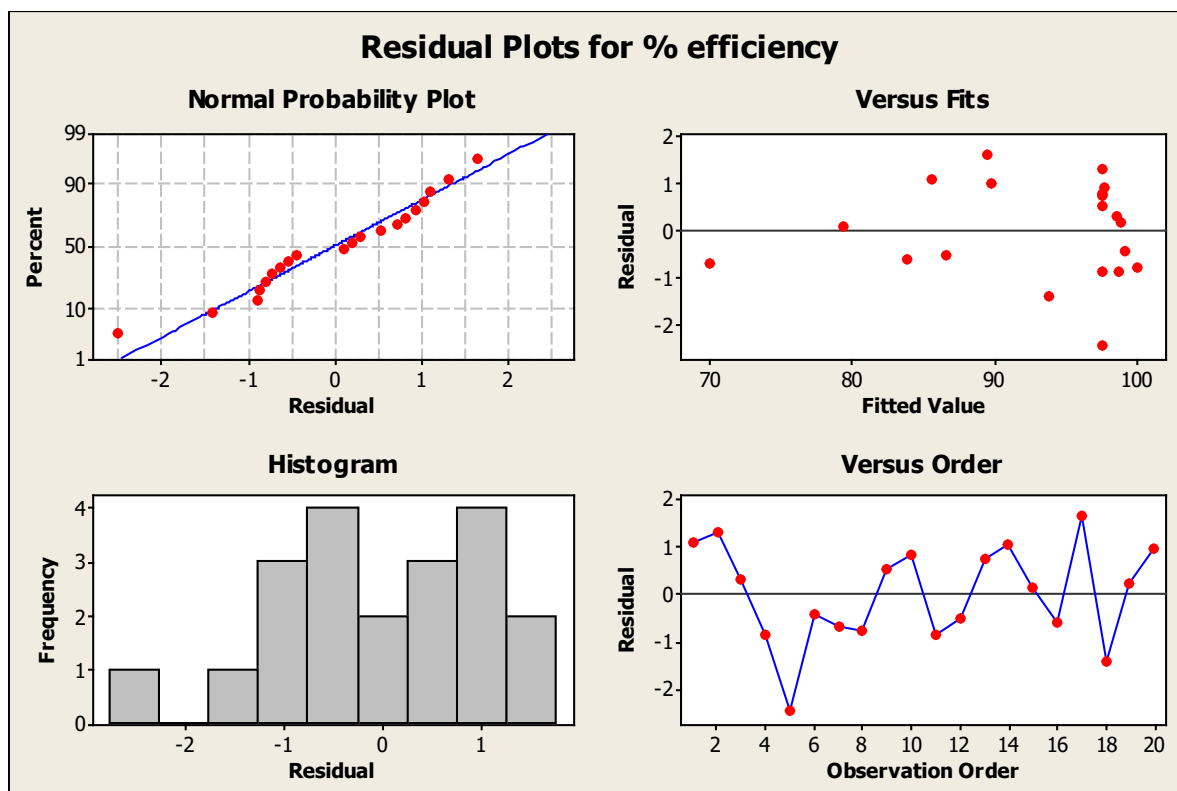
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SM 1 Life Cycle Inventory of NaOH precipitation and ferritization methods

Process	Quantity		Unit
	Hydroxide precipitation	Ferritization	
1. Input			
1.1 Material input			
H ₂ SO ₄	10	-	ml l ⁻¹
NaOH	30	-	g l ⁻¹
FeSO ₄ .7H ₂ O	-	42.46	g l ⁻¹
1.2 Energy input			
Electricity for mechanical stirrer	3.96	-	MJ
Electricity for centrifuge	0.102	-	MJ
Electricity for aspirator	1.008	0.252	MJ
Electricity for hot air oven	14.4	-	MJ
Electricity for air pump	-	0.0252	MJ
Electricity for water bath	-	12.672	MJ
Electricity for the furnace	-	8.64	MJ
2. Output			
Sludge	0.0961	0.0297	kg l ⁻¹
Copper wastewater	768.58	73.08	mg l ⁻¹

SM 2



Four types of residual plots related to the percentage of copper removal efficiency.