



Ain Shams University
Faculty of Science
Physics Department

Potential application of locally produced steel alloys for nuclear reactor domain

A Thesis

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In Physics

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List of abbreviations

Abbreviations	Description
ASS	Austenite stainless steel sample
BCC	Body center cubic crystal structure
BWR	Boiled water reactor
CMRDI	Central metallurgical research institute
Ci	Curie (Activity Unit)
ESR	Electro slag re-melting unit
FCC	Face center cubic crystal structure
He-3	Helium three neutrons detector
HVL	Half value layer
keV	Kilo-electron volt
NAI (TI)	Sodium iodide gamma ray detector
PWR	Pressurized water reactor
RPV	Reactor pressure vessel
SGs	Steam generators
SPGA	Spectrographic analysis
SS	Stainless steel
wt.	Weight