

# **2007 TAIWAN INTERNATIONAL SCIENCE FAIR**

**CATEGORY : Engineering**

**PROJECT : E-SBR Production**

**AWARDS : Engineering Third Award**

**SCHOOL : Kuwait University**

**FINALISTS : Naser Alhajer**

**COUNTRY : Kuwait**

Abstract of Exhibit  
Taiwan International Science Fair

Category: Engineering  
Title: E-SBR Production  
Name: Naser Alhajeri  
Country: Kuwait

The objective of this project is to investigate styrene butadiene rubber(SBR), which is the most important synthetic rubber. The project contains production methods, properties, safety methods and applications for emulsion SBR. The goal is to determine which production technique of SBR is the most beneficial. This is based on the chemical and physical properties of the final product and its quality. The process that is used in the project is emulsion SBR with combined coagulation stripping.

The rubber production plant is a profitable venture. The total capital cost is estimated around \$31,361,572, with an annual production cost of about \$67,281,378 yearly, generating revenues of \$73,801,760 per fiscal year, with an interest rate of 5%. The life of the plant is 15 years and would produce 50,000 ton/year.

## 評語

As a chemical engineering project, the author has done a pretty good job for the chemical process planning, construction design for cost-effective mass production and business operation and management. It is my pleasure to recommend this work to be the 3rd award for its well-defined object, its value for practical application, the author's good research attitude, and the author's excellent presentation skill.