

5472  
RUPA

**APPLICATION OF CONCEPTS OF EQUILIBRIUM IN EVERYDAY  
LIFE**

A PROJECT REPORT PRESENTED BY

R.A. APSARA RUPASINGHE

to the Board of Study in Science Education of the

**POSTGRADUATE INSTITUTE OF SCIENCE**

In partial fulfillment of the requirement

for the award of the degree of

**MASTER OF SCIENCE IN SCIENCE EDUCATION**

of the

**UNIVERSITY OF PERADENIYA**

**SRI LANKA**

**2006**

18 AUG 2007

i

**607501**

## ABSTRACT

# APPLICATION OF CONCEPTS OF EQUILIBRIUM IN EVERYDAY LIFE

**R.A Apsara Rupasinghe**

Postgraduate institute of science

University of Peradeniya

Peradeniya

Sri Lanka

The interest that students show in chemistry and its concepts wanes day by day. The students are unable to link real life situations to the concepts they learn in class room. As such chemistry is seen only as a difficult subject at A/L (Advanced level). However if we are able to integrate the concepts of A/L chemistry with every day phenomena this subject can be made more interesting and this would enhance the students' curiosity about chemistry. If the teacher guided the student in this direction it could result in a more meaningful learning of chemistry.

This research project attempts to highlight the links between everyday phenomena and concepts of equilibrium. Consideration of the curriculum, evaluation, psychology, teacher and student perspectives tend to justify the hypothesis "Using RWA (Real World Applications) for teaching equilibrium makes students learning more interesting and meaningful".

National goals of education, objectives of chemistry, evaluation reports and literature survey were used to analyse the curriculum, psychology and evaluation perspectives. Two questionnaires were administered to teachers and students to analyse the student and teacher perspectives.

It is seen that the curriculum, psychology and evaluation perspectives appreciate very much the use of RWA for teaching purpose. The two survey results showed that teachers are not mindful of the use RWA for teaching purpose and the students are not familiar with the RWA.

In order to overcome the problems identified the preparation of a booklet on the concepts of equilibrium and their relevance in the real world was undertaken. The book is titled "Everyday phenomena & Equilibrium". The book mainly focuses on some natural phenomena relevant to equilibrium concept.

A chapter on problem based teaching encouraging students to analyse the natural situations using equilibrium concepts is included. This may provide relief to the reader from the monotony and arouse their curiosity.