

# BE A CHEMIST FOR A DAY

## FACULTY OF HEALTH, ENGINEERING AND SCIENCE

### VICTORIA UNIVERSITY

WERRIBEE CAMPUS, Hoppers Lane, Werribee. Building 2, level 2, room 22.30

This program aims to show secondary college students (yr 9 &10) what a practising chemist does.

Topics include synthetic organic chemistry, magnetic particle technology, conductivity, electrochemistry, chromatography and spectroscopy.

The following list provides the concept of each experiment. The focus is on doing things without a full scientific explanation of how and why.

The detailed experimental instructions will be provided electronically upon booking so that the teacher can print them prior to the session and introduce the students to the scientific concepts.

#### SYNTHETIC ORGANIC CHEMISTRY: ASPIRIN TO DENCORUB

The analgesic, acetylsalicylic acid, is first hydrolysed to salicylic acid and then esterified with methanol to produce methyl salicylate.

#### CONDUCTIVITY: CRYSTALLINE SOLIDS

The solubility of three compounds in three solvents of increasing polarity will be investigated and a conductivity meter used to determine which samples produce ions upon dissolution.

#### CHROMATOGRAPHY, THIN LAYER: PIGMENTS IN INK

Several inks from ball point pens and fibre-tipped markers will be chromatographed on silica gel plates with solvents of varying polarity. The number of components in each ink will surprise.

#### ELECTROCHEMISTRY: THE ELECTROCHEMICAL SERIES.

The relative reactivity of some metals will be investigated using a digital multimeter.

#### MAGNETIC PARTICLE TECHNOLOGY

This experiment shows the very-promising technique of safe removal of contamination from the feathers of sea birds.

#### SPECTROSCOPY: FLAME EMISSION

The atomic emission spectra of some metal ions will be observed using a Bunsen burner flame and a simple spectroscope.

**Preferred maximum number of students per session is 18.**

**Sessions are available for Term 3 on Tuesdays, Thursdays and Fridays.**

**Sessions times 9.30am- 12.00pm and 12.30 pm – 3.00 pm.**

#### Enquires and bookings contact:

Santa Giordano, Schools Liaison Officer on 9919 2103 or email [santa.giordano@vu.edu.au](mailto:santa.giordano@vu.edu.au)  
(on leave from June 24 to August 2)

Ray Horsley, Demonstrator on 9919 8229 or 0413 107 182 or email [raymohd.horsley@vu.edu.au](mailto:raymohd.horsley@vu.edu.au)