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| ExperimentControl | **Sulphur dioxide chemistry** |
| **Wear eye protection. Work in a well-ventilated lab.*** If not already laminated, place this sheet in a plastic wallet/folder.
* Place 2 x 9 cm diameter Petri dishes on the two blue circles (left). Remove lids.
* Place 2 – 3 drops of the test solutions in **both** Petri dishes in the numbered positions, **1 to 7** as described below.
1. Universal indicator solution
2. Potassium permanganate 0.001 mol l-1
3. Iodine 0.1 mol l-1 .
4. Ammonium metavanadate solutions 0.1 mol l-1
5. Potassium dichromate 0.1 mol l-1
6. Barium chloride 0.1 mol l-1
7. Barium chloride 0.1 mol l-1 + 1 drop of 20 vol H2O2
* Place an empty ‘reaction vessel’ (eg,) in the ‘RV’ circle.
* To generate sulphur dioxide gas (TOXIC): place about ½ a small spatula tip of sodium (or potassium) sulphite IV (or any of the various bisulphites and similar) in the blister pack). Add 0.5 cm3 (approximately 10 drops) of 0.5M sulphuric acid to the reaction vessel. **Immediately place the lid on the Petri dish**.
* Watch carefully and record your observations over the next 5-10 minutes (eg, *take photographs*).
* Explain as much of the chemistry going on in the Petri dish as you can.
* **Disposal**: put petri dish in a bowl of water. Wash solution to waste with cold running water.
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