**Manchester Institute of Biotechnology - Risk Assessment Form**



| **Date:**  08/01/15 | **Assessed by**:  Tanya Aspinall | **Validated by**:  Roy Goodacre | **Location**:  MIB 2.042 and 1.062. | **Review date:**  08/01/16 |
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| **Task**:  Surface-enhanced Raman spectroscopy analysis using colloidal nanoparticles. |
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| **Activity** | **Hazard** | **Person(s) in danger** | **Existing measures to control risk** | **Risk rating** | **Result** |
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| Mixing of colloid, sample, aggregating agent(s) and other substances for analysis (i.e. internal standard, additional solvent). | Formation of hazardous by-products through the mixing of incompatible reagents. | Analyst | Ensure compatibility of all reagents mixed for analysis, including residual by-products of any synthesised reagents (particularly the colloid), by checking relevant local COSHH information. | Low | A |
| Analysis using DeltaNu spectrometers. | Refraction and/or reflection of laser from sample meniscus. | Analyst and nearby workers. | Analyst to ensure there is adequate sample volume in the sample vial (400μL) to eliminate hazard. All analysts to have received appropriate training in laser safety/awareness and to have read and signed laser risk assessments. | Low | A |
| Electrical hazard – risk of shock. | Analyst if equipment is faulty. | Users made aware of electrical risks during training.  All equipment is annually PA tested and any equipment with out-of-date, failed, or missing labels is not to be used.  Any obvious danger, i.e. sparks, damaged cables etc. are to be reported to technical staff and the equipment not used, or switched off if in use.  No panels are removed unless trained to do so.  Solvents and other liquids are not to be stored near the equipment whenever possible. | Low | A |
| Regular computer use – upper limb disorders associated with repetitive actions and/or eyestrain if lighting and/or screen image is poor. | Analyst | Work scheduled so that analyst takes regular breaks from the computer. | Low | A |

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| **Authorisation by PI**  **I confirm that I have considered and understand the experiment and the associated hazards. I am satisfied that all of the hazards have been identified and that the control measures to be followed will reduce the risks to acceptable levels.**  **Print name: Signed:**  **Date:** |

**Declaration by researcher**

**I confirm that I have read this Risk Assessment and that I understand the hazards and risks involved and will follow all of the safety procedures stated. Where PPE has been identified as a control measure, I will ensure that it is worn.**

**Declaration by PI**

**I confirm that the researcher who has signed below is competent to undertake the work. My counter-signature indicates that I am happy for the work to proceed.**

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| **Name (please print)** | **signed** | **PI countersignature** | **date** |
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