Supporting Information for

Inter-comparison study of atmospheric ^{222}Rn and ^{222}Rn progeny monitors

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Introduction

Here we show the plots of the linear regression fits calculated during the Phase I and II of our intercomparison study.
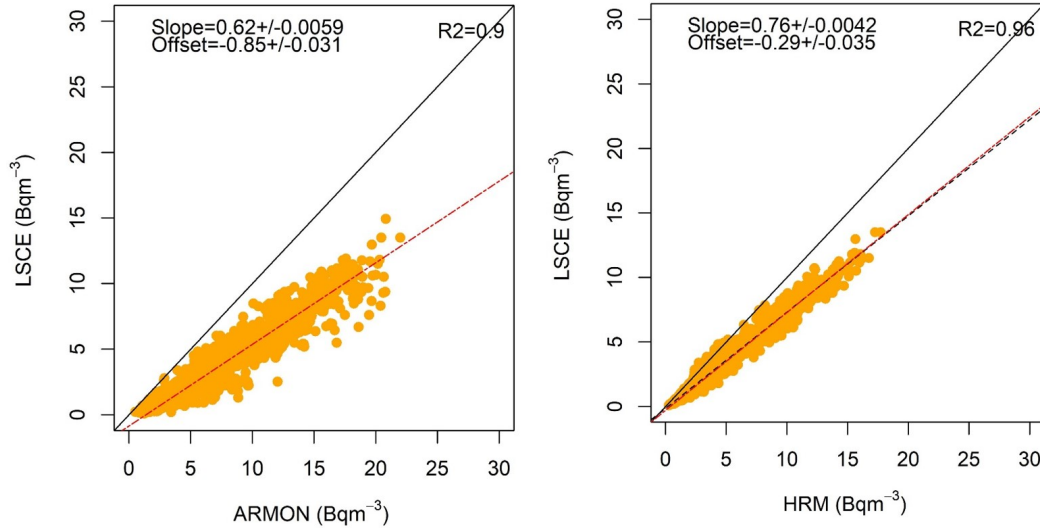
Figure S1. **Left panel**: Linear regression fits between the hourly atmospheric [214]Po activity concentrations measured by the LSCE and the [222]Rn activity concentrations measured by ARMON during the Phase I at the ODM site. **Right panel**: Linear regression fits between the hourly atmospheric [214]Po activity concentrations measured by the LSCE and the HRM during the Phase I at the ODM site.
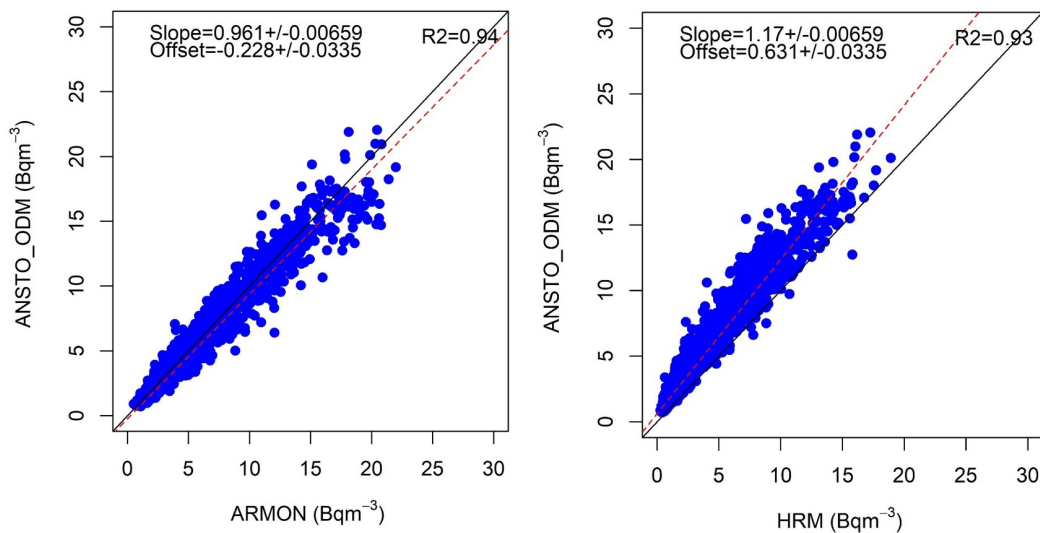
Figure S2. **Left panel**: Linear regression fits between the hourly atmospheric ^{222}Rn activity concentrations measured by the ANSTO_ODM and by ARMON during the Phase I at the ODM site. **Right panel**: Linear regression fits between the hourly atmospheric ^{222}Rn activity concentrations measured by the ANSTO_ODM and the hourly atmospheric ^{214}Po activity concentrations measured by the HRM during the Phase I at the ODM site.
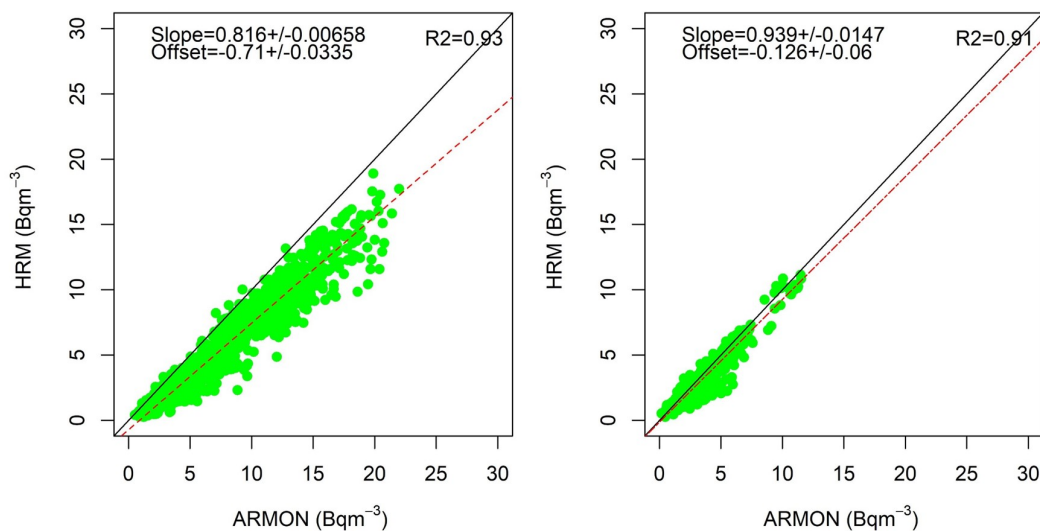
Figure S3. **Left panel**: Linear regression fits between the hourly atmospheric ^{214}Po activity concentrations measured by the HRM and the hourly atmospheric ^{222}Rn activity concentration

measured by the ARMON during the Phase I at the ODM site. **Right panel**: Linear regression fits between the hourly atmospheric ^{214}Po activity concentrations measured by the HRM and the hourly atmospheric ^{222}Rn activity concentration measured by the ARMON during the Phase II at the SAC site.
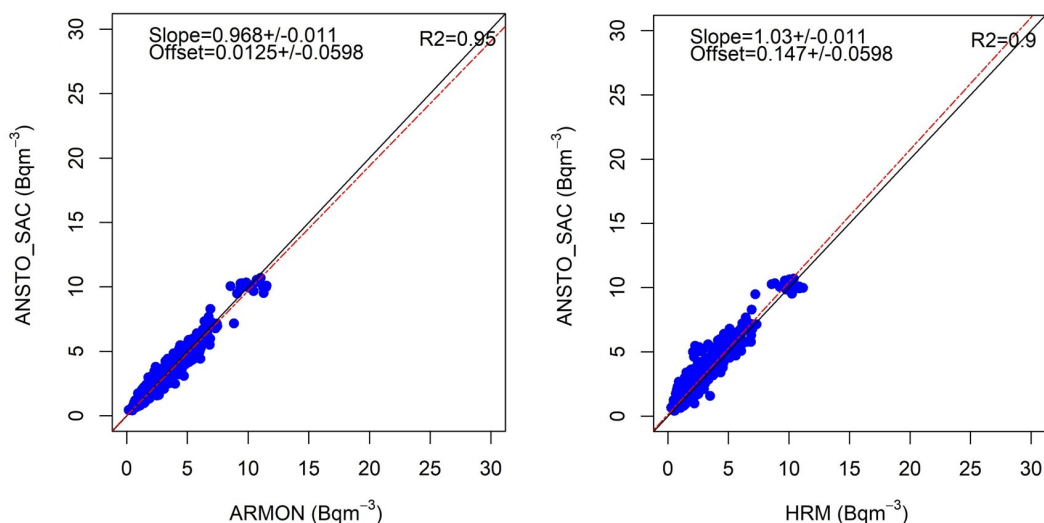
Figure S4. **Left panel**: Linear regression fits between the hourly atmospheric ^{222}Rn activity concentrations measured by the ANSTO_SAC and by ARMON during the Phase II at the SAC site. **Right panel**: Linear regression fits between the hourly atmospheric ^{222}Rn activity concentrations measured by the ANSTO_SAC and the hourly atmospheric ^{214}Po activity concentrations measured by the HRM during the Phase II at the SAC site.