Procedure for Use of the XPS Autosampler
August 26, 2016

1. Create and save a recipe(s) with the appropriate scan parameters for the sample or samples being examined.

2. Create a new recipe set to Function: PT M (for position table).

3. From the View menu, select *Motion Control Pnl*. The motion control panel should appear.

4. Focus on the first sample to be examined. Follow the procedure outlined in the main instrument manual. Use the auto Z feature on the joystick to optimize the count rate, then switch auto Z to off. Keep the X-rays turned on. (**Do not reset the 0,0,0,0 position!)**

5. If there is a red warning that says: "Joystick disabled" then press the joystick button on the *Motion Control Pnl*. This will change the warning to "Joystick enabled."

6. In the recipes box, select the pencil icon in the function menu. A dialog box called "Position Table – Multi Recipe" should appear. Select the button labeled "Add Line." With the line highlighted, select the button labeled "Get Position."

7. Move the stage to focus on the next sample. Make sure you are at a CBE that has a peak in this sample. Switch on the auto Z feature on the joystick and wait for the count rate to optimize, then switch auto Z to off. Select "Add Line" and "Get Position" again. The second line should read the coordinates from the Motion Control panel dialog box. Continue this process until the coordinates of each sample have been entered into the Position Table dialog box.

8. Select the button labeled "Recipes" in the middle of the Position Table dialog box. Under the "Position" heading, name each sample. Under the "Recipe" heading, select the recipe with the appropriate scan parameters for each sample.

9. Select "Save > Exit."

10. In the recipe function menu, type the range of positions to be analyzed in the box that is to the upper right corner of the pencil icon. For example, if you have 4 positions, then type 1-4.

11. In the box in the lower right-hand corner of the screen, name the project and experiment. Do not put important information in the "Expt. Desc." line because it will not be saved. The entry for this line will be filled in as the names that were given to the positions in step 8.

12. Select "Run" from the top of the screen.