

Supplementary Material 1

Matlab Program

```
srcDir=uigetdir('E:\Matlab...');          % Select file.
cd(srcDir);
allnames=struct2cell(dir('*.*tif'));      % Process 8-digit bmp files.
[k,len]=size(allnames);                  % Calculate the amount of bmp files.

for ii=1:len    % Read files one by one
    name=allnames{1,ii};
    I=imread(name);          % Read one file.
    [L,num]=bwlabel(I);      % Calculate the pixel amount of the white area of the
                                binary figure.
    stats=regionprops(L,'Area');

    A=stats.Area;            % Calculate the pixel amount of the whole figure
    [m,n] = size(I);         % Calculate I. m means the pixel amount of each row and n
                                means the pixel amount of each column.
    sum=m*n;                 % Sum of the pixels of the whole figure.

    fid1 = fopen('Area_White.txt','wt');    % Write the pixel amount of the white area of
                                                the figure and pixel amount of the whole
                                                figure into a file.
    fprintf(fid1,'%g\n',A);                % \n Newline.
    fclose(fid1);
    fid2 = fopen('Area_Overall.txt','wt');
    fprintf(fid2,'%g\n',sum);
    fclose(fid2);

end
```