function [SOLC]=solver1(C)

% input: C,

% Experimental response, binary vector 1 by 6. The first five

% columns in the order of the design matrix, and the sixth

% coordinate equal to 1.

% output: SOLC,

% Binary vector 1 by 10.

% '0' sample negative.'1' sample to be analysed individually.

% V.1 March 21, 2023

% design matrix

R6F10= [0,0,1,0,0,0,1,1,0,1

 1,1,0,1,0,0,0,0,0,1

 0,0,1,1,1,0,0,0,1,0

 1,0,0,0,1,1,0,1,0,0

 0,1,0,0,0,1,1,0,1,0

 1,1,1,1,1,1,1,1,1,1];

IT1=C;

 for i=1:6

 MS(i,:)=R6F10(i,:);

 if IT1(i)==0

 for j=1:10

 if R6F10(i,j)== 1

 MS(i,j)=2;

 end

 end

 end

 end

 S=ones(1,10);

 for j=1:10

 if max(MS(:,j))== 2

 S(j)=0;

 end

 end

 SOLC=S;

end