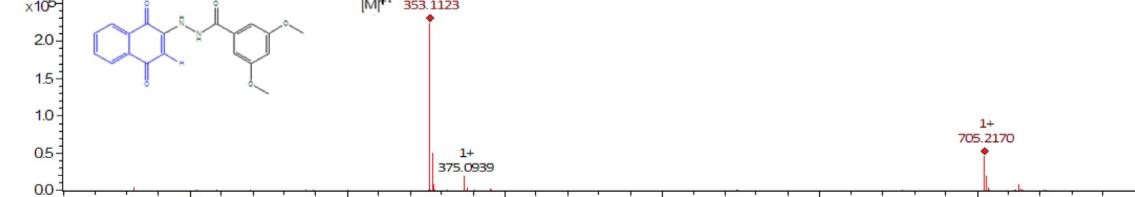
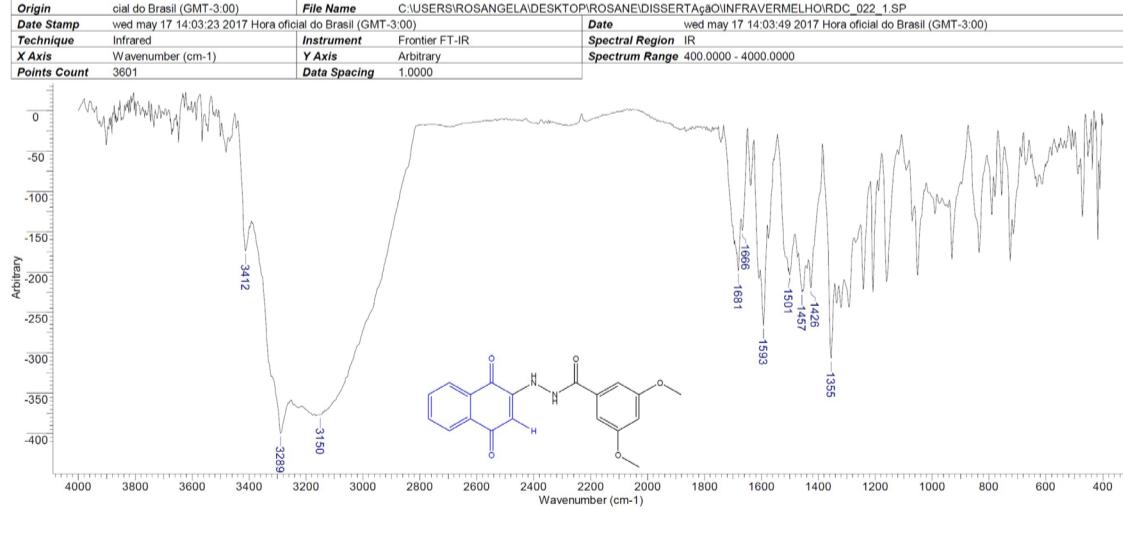
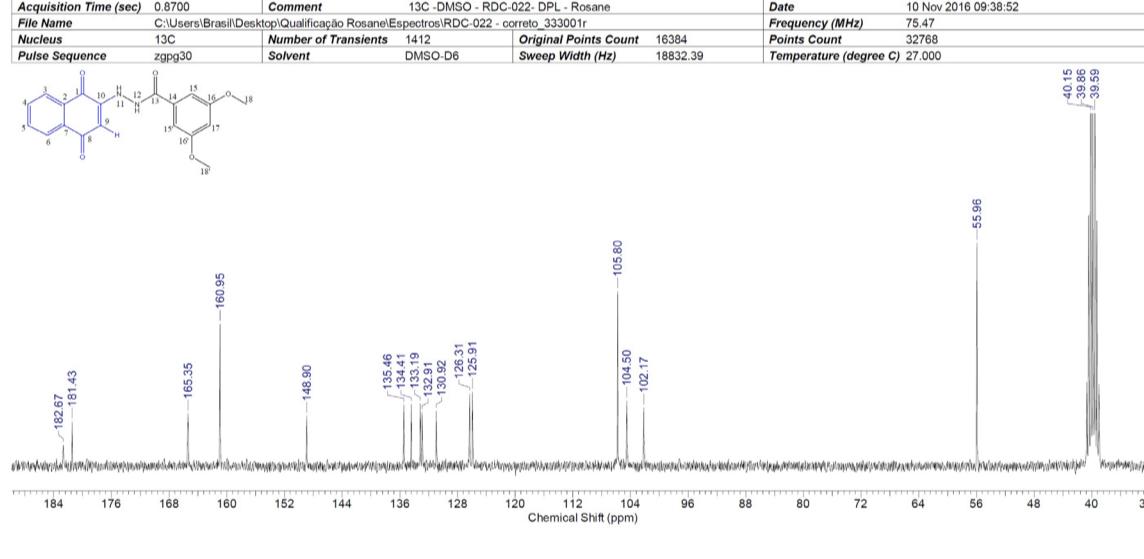
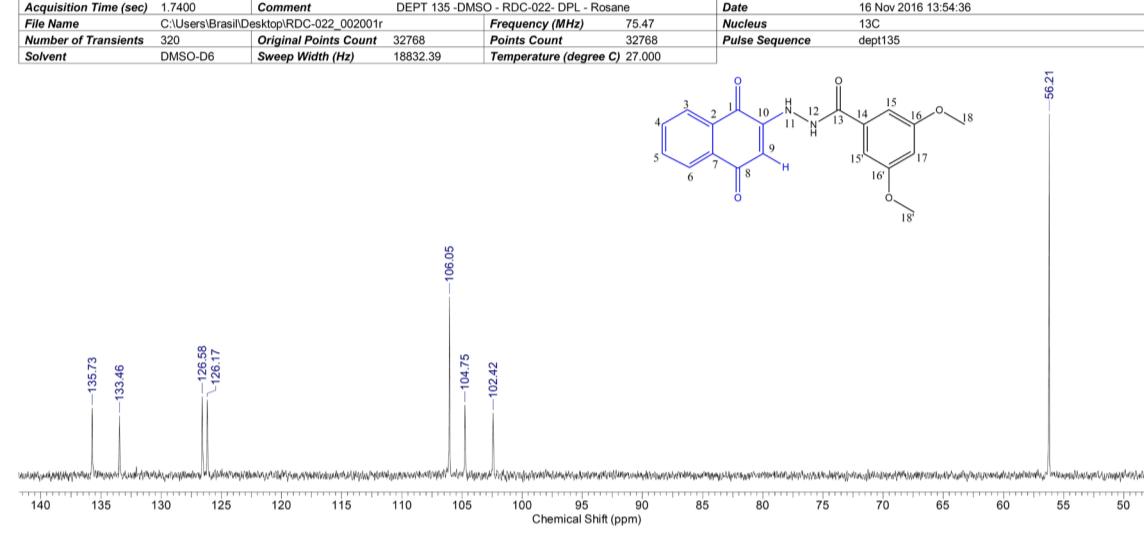
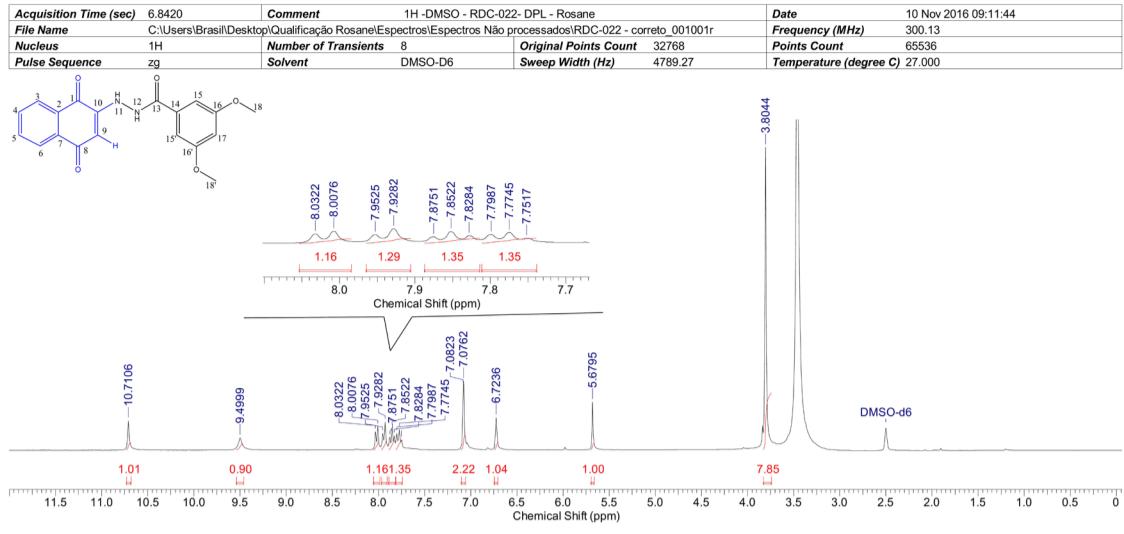
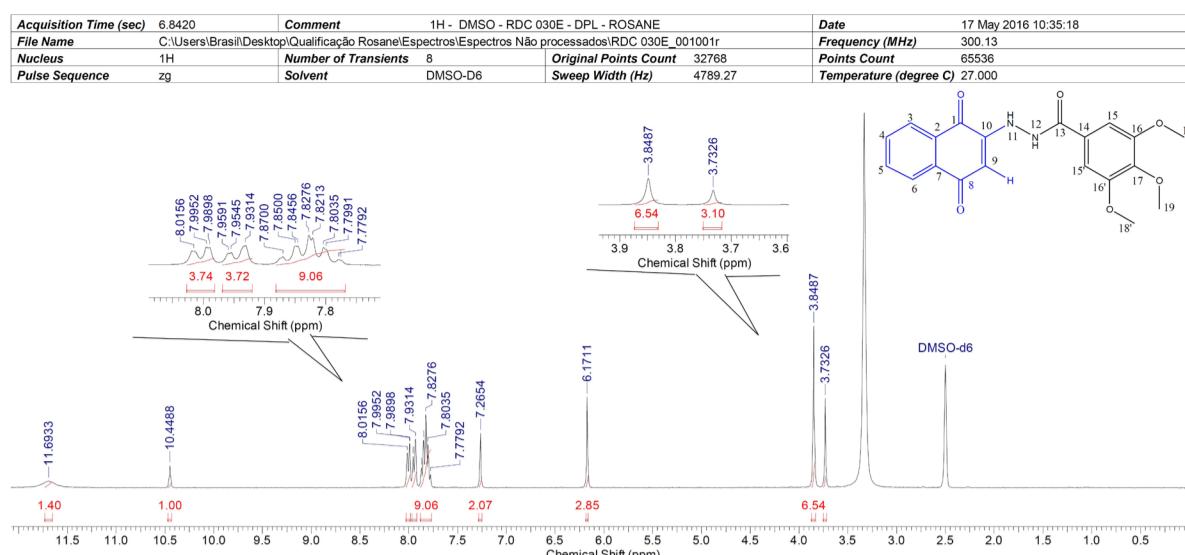


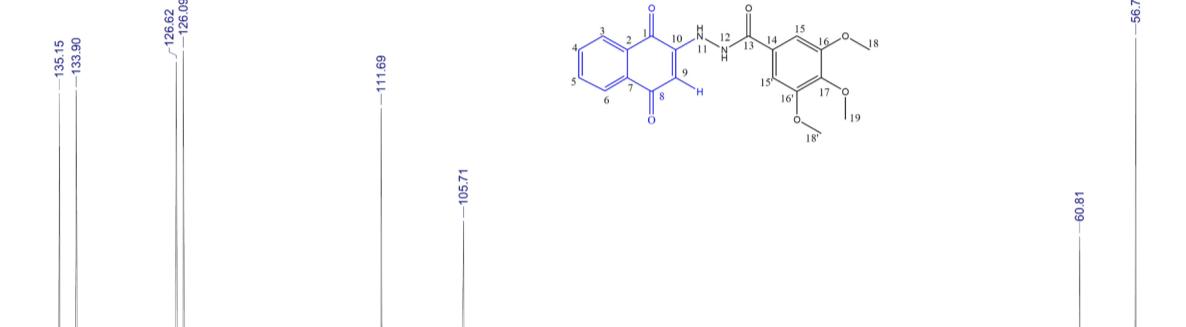
## SUPPLEMENTARY MATERIAL



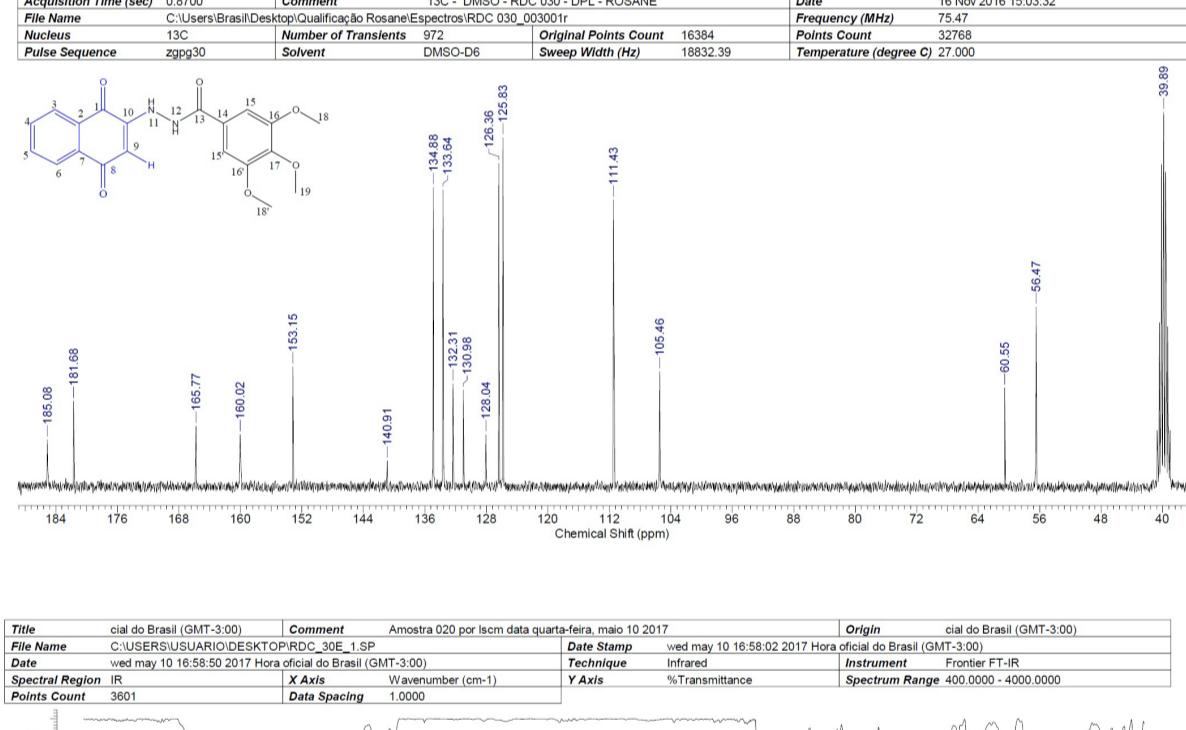
**Figure S1** Structural elucidation of *N'*-(1,4-Dioxo-1,4-dihydropthalen-2-yl)-3,5-dimethoxybenzohydrazide (13)



|                               |   |                             |  |                              |                      |
|-------------------------------|---|-----------------------------|--|------------------------------|----------------------|
| <b>Acquisition Time (sec)</b> | 1.7400  | <b>Comment</b>              | DEPT 135 - DMSO - RDC 030 - DPL - ROSANE | <b>Date</b>                  | 16 Nov 2016 15:18:00 |
| <b>File Name</b>              | C:\Users\Brasil\Desktop\Qualificação Rosane\Espectros\RDC 030_002001r | <b>Frequency (MHz)</b>      | 75.47                                    | <b>Points Count</b>          | 32768                |
| <b>Nucleus</b>                | 13C   | <b>Number of Transients</b> | 200                                      | <b>Original Points Count</b> | 32768                |
| <b>Pulse Sequence</b>         | dept135   | <b>Solvent</b>              | DMSO-D6                                  | <b>Sweep Width (Hz)</b>      | 18832.39             |
| <b>Temperature (degree C)</b> | 27.000  |                             |  |                              |                      |



|                               |   |                             |                                     |                              |                      |
|-------------------------------|---|-----------------------------|-------------------------------------|------------------------------|----------------------|
| <b>Acquisition Time (sec)</b> | 0.8700  | <b>Comment</b>              | 13C - DMSO - RDC 030 - DPL - ROSANE | <b>Date</b>                  | 16 Nov 2016 15:03:32 |
| <b>File Name</b>              | C:\Users\Brasil\Desktop\Qualificação Rosane\Espectros\RDC 030_003001r | <b>Frequency (MHz)</b>      | 75.47                               | <b>Points Count</b>          | 32768                |
| <b>Nucleus</b>                | 13C   | <b>Number of Transients</b> | 972                                 | <b>Original Points Count</b> | 16384                |
| <b>Pulse Sequence</b>         | zgpg30  | <b>Solvent</b>              | DMSO-D6                             | <b>Sweep Width (Hz)</b>      | 18832.39             |
| <b>Temperature (degree C)</b> | 27.000  |                             |                                     |                              |                      |



|                        |  |                     |  |                       |                           |
|------------------------|--|---------------------|--|-----------------------|---------------------------|
| <b>Title</b>           | cial do Brasil (GMT-3:00)                                  | <b>Comment</b>      | Amostra 020 por lscom data quarta-feira, maio 10 2017      | <b>Origin</b>         | cial do Brasil (GMT-3:00) |
| <b>File Name</b>       | C:\USERS\USUARIO\DESKTOP\RDC_30E_1.SP                      | <b>Date Stamp</b>   | wed may 10 16:58:02 2017 Hora oficial do Brasil (GMT-3:00) | <b>Technique</b>      | Infrared                  |
| <b>Date</b>            | wed may 10 16:58:02 2017 Hora oficial do Brasil (GMT-3:00) | <b>Instrument</b>   | Frontier FT-IR   |                       |                           |
| <b>Spectral Region</b> | IR   | <b>X Axis</b>       | Wavenumber (cm-1)  | <b>Y Axis</b>         | %Transmittance            |
| <b>Points Count</b>    | 3601   | <b>Data Spacing</b> | 1.0000   | <b>Spectrum Range</b> | 400.0000 - 4000.0000      |

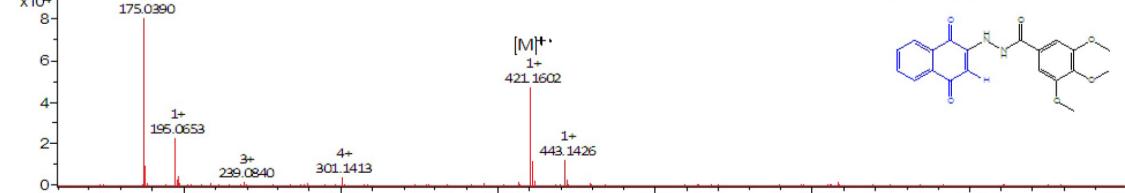
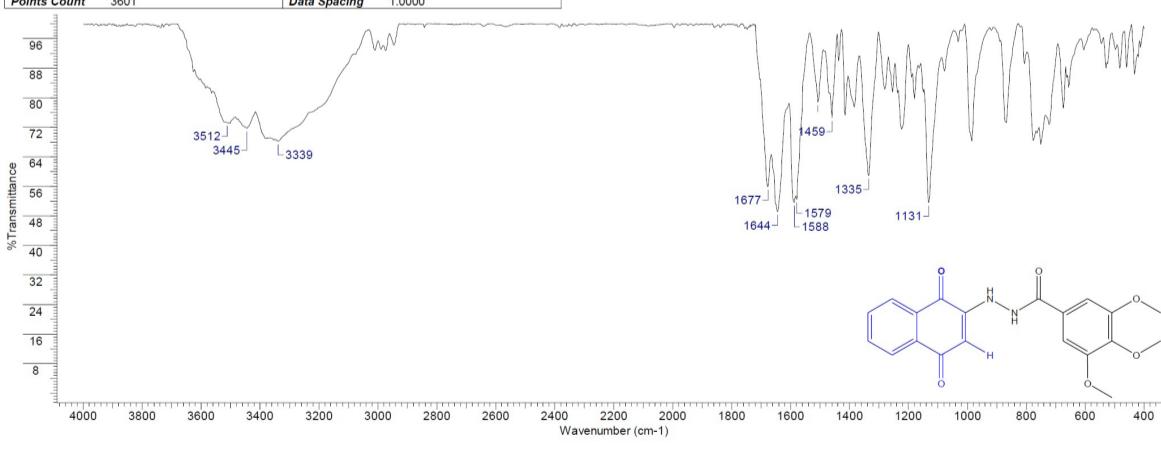
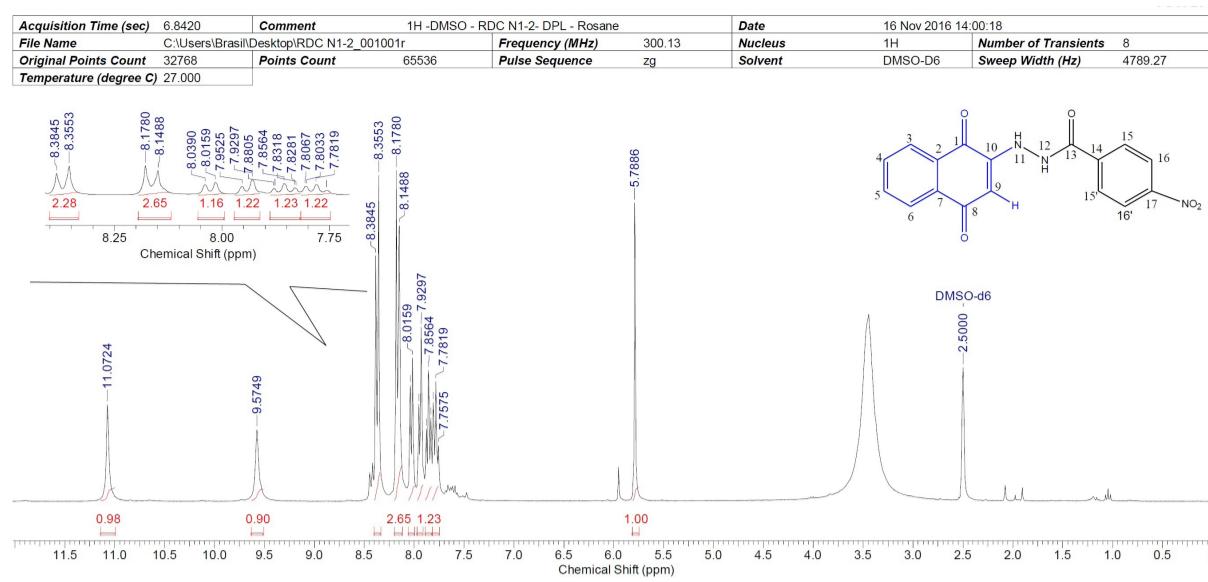
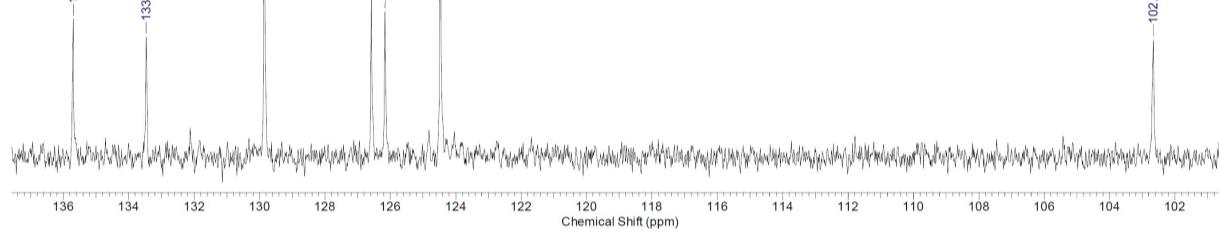


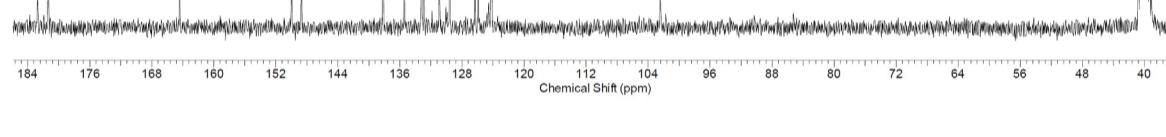
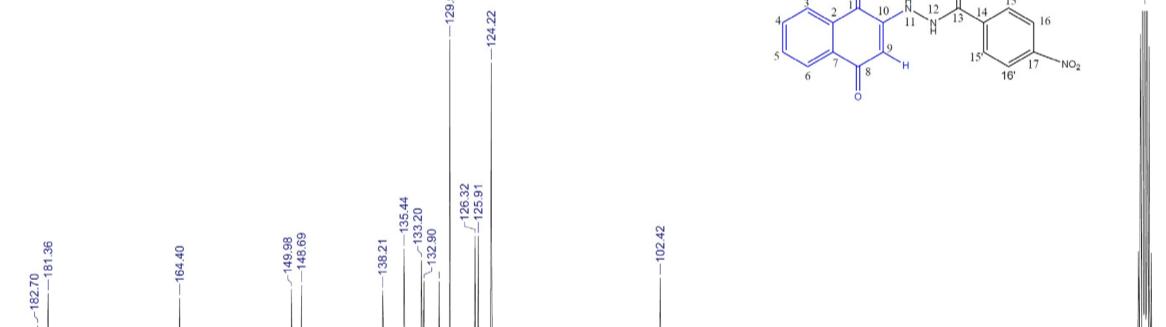
Figure S2. Structural elucidation of *N'*-(1,4-Dioxo-1,4-dihydronaphthalen-2-yl)-3,4,5-trimethoxybenzohydrazide (14).



|                        |  |                       |   |                        |                      |
|------------------------|--|-----------------------|---|------------------------|----------------------|
| Acquisition Time (sec) | 1.7400                                   | Comment               | DEPT 135 -DMSO - RDC N1-2- DPL - Rosane | Date                   | 10 Nov 2016 10:31:52 |
| File Name              | C:\Users\Brasil\Desktop\RDC N1-2_002001r | Frequency (MHz)       | 75.47                                   | Nucleus                | <sup>13</sup> C      |
| Number of Transients   | 160                                      | Original Points Count | 32768                                   | Points Count           | 32768                |
| Solvent                | DMSO-D6                                  | Sweep Width (Hz)      | 18832.39                                | Temperature (degree C) | 27.000               |



|                        |  |                       |  |                        |                      |
|------------------------|--|-----------------------|--|------------------------|----------------------|
| Acquisition Time (sec) | 0.8700                                   | Comment               | <sup>13</sup> C -DMSO - RDC N1-2- DPL - Rosane | Date                   | 10 Nov 2016 10:16:14 |
| File Name              | C:\Users\Brasil\Desktop\RDC N1-2_003001r | Frequency (MHz)       | 75.47  | Nucleus                | <sup>13</sup> C      |
| Number of Transients   | 1219                                     | Original Points Count | 16384  | Points Count           | 32768                |
| Solvent                | DMSO-D6                                  | Sweep Width (Hz)      | 18832.39                                       | Temperature (degree C) | 27.000               |



| File | Name | Comment | Amostra 021 por lsqm data quarto de dia 10/10/2017 | Origin         | Brasil (GMT-3.00)  |
|------|------|---------|--|----------------|--|
|      |      |         |  | Date Stamp     | wed may 10 17:06:21 2017 Hora oficial do Brasil (GMT-3.00) |
|      |      |         |  | Technique      | Infrared   |
|      |      |         |  | Instrument     | Frontier FT-IR   |
|      |      |         |  | Spectrum Range | 400.0000 - 4000.0000                                       |
|      |      |         |  | Points Count   | 3601   |
|      |      |         |  | Data Spacing   | 1.0000   |

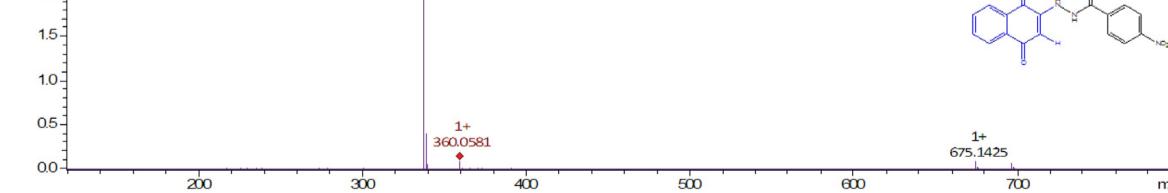
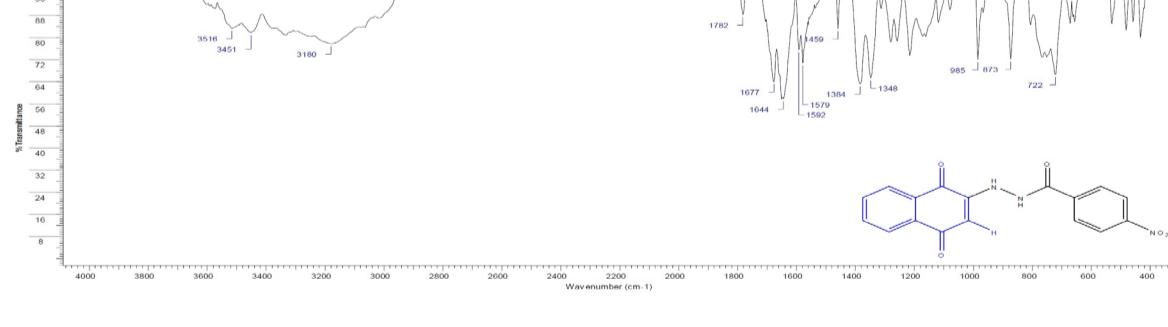
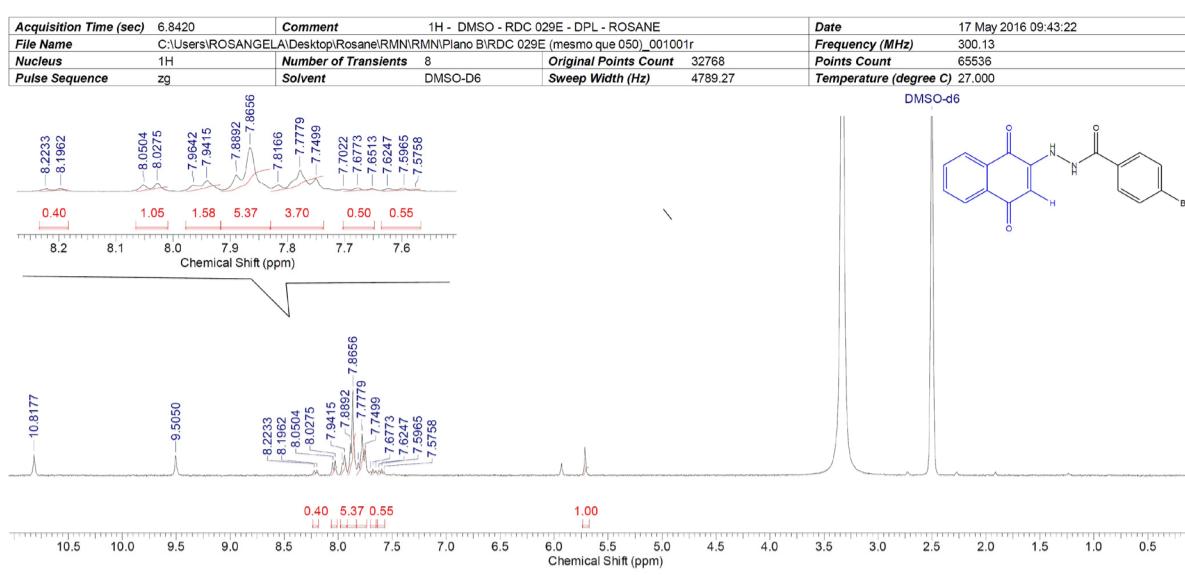
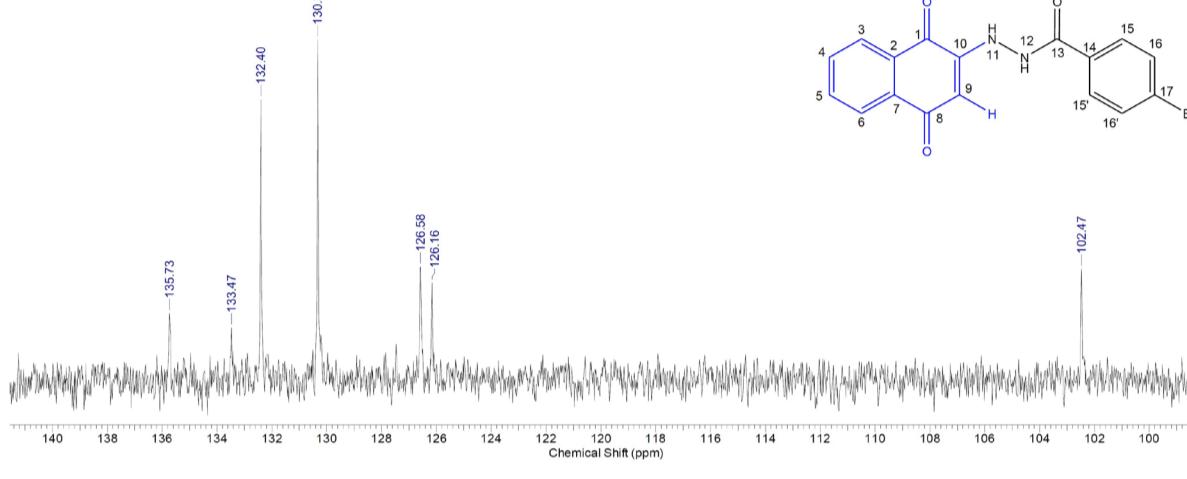


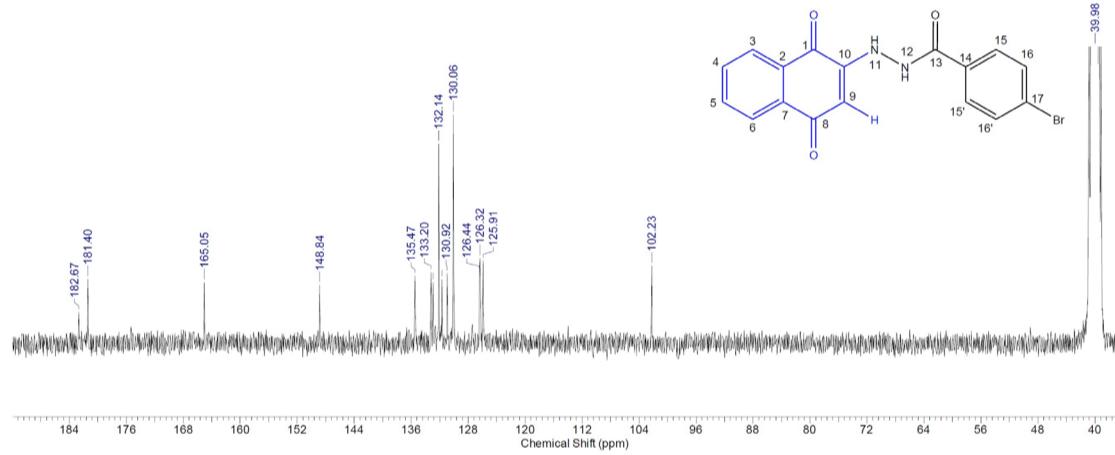
Figure S3. Structural elucidation of *N'*-(1,4-Dioxo-1,4-dihydronaphthalen-2-yl)-4-nitrobenzohydrazide (15).



|                        |   |                      |                                      |                       |                      |
|------------------------|---|----------------------|--------------------------------------|-----------------------|----------------------|
| Acquisition Time (sec) | 1.7400  | Comment              | DEPT - DMSO - RDC 050 - DPL - ROSANE | Date                  | 16 Nov 2016 15:34:28 |
| File Name              | C:\Users\ROSANGELA\Desktop\Rosane\RMN\RMN\RDC 050_022001r |                      |                                      | Frequency (MHz)       | 75.47                |
| Nucleus                | 13C   | Number of Transients | 200                                  | Original Points Count | 32768                |
| Pulse Sequence         | dept135   | Solvent              | DMSO-D6                              | Sweep Width (Hz)      | 18832.39             |



|                        |   |                      |                                  |                       |                      |
|------------------------|---|----------------------|----------------------------------|-----------------------|----------------------|
| Acquisition Time (sec) | 0.8700  | Comment              | 13C -DMSO- RDC 050- DPL - ROSANE | Date                  | 16 Nov 2016 14:51:22 |
| File Name              | C:\Users\ROSANGELA\Desktop\Rosane\RMN\RMN\RDC 050_003001r |                      |                                  | Frequency (MHz)       | 75.47                |
| Nucleus                | 13C   | Number of Transients | 1168                             | Original Points Count | 16384                |
| Pulse Sequence         | zgpg30  | Solvent              | DMSO-D6                          | Sweep Width (Hz)      | 18832.39             |



|                 |  |              |  |                |  |
|-----------------|--|--------------|--|----------------|--|
| Title           | cial do Brasil (GMT-3:00)                                  | Comment      | Amostra 001 por Icsm data quarta-feira, maio 17 2017 | Origin         | cial do Brasil (GMT-3:00)                                  |
| File Name       | C:\USERS\SUSUARIO\DESKTOP\RDC_050_1.SP                     |              |  | Date Stamp     | wed may 17 14:14:17 2017 Hora oficial do Brasil (GMT-3:00) |
| Date            | wed may 17 14:17:08 2017 Hora oficial do Brasil (GMT-3:00) |              |  | Technique      | Infrared   |
| Spectral Region | IR   | X Axis       | Wavenumber (cm-1)                                    | Instrument     | Frontier FT-IR   |
| Point Count     | 3601   | Data Spacing | 1.0000   | Spectrum Range | 400.0000 - 4000.0000                                       |

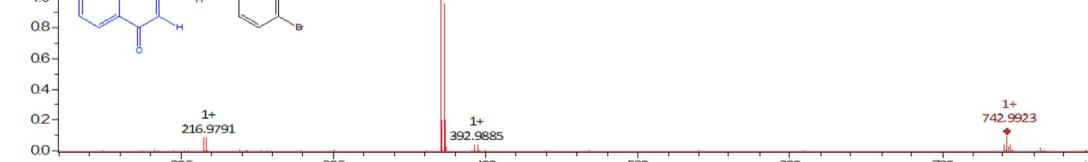
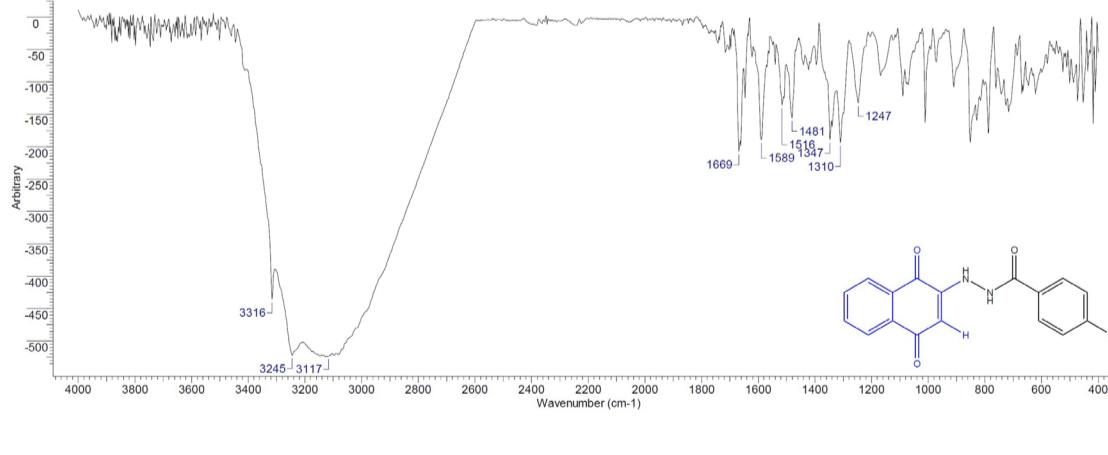
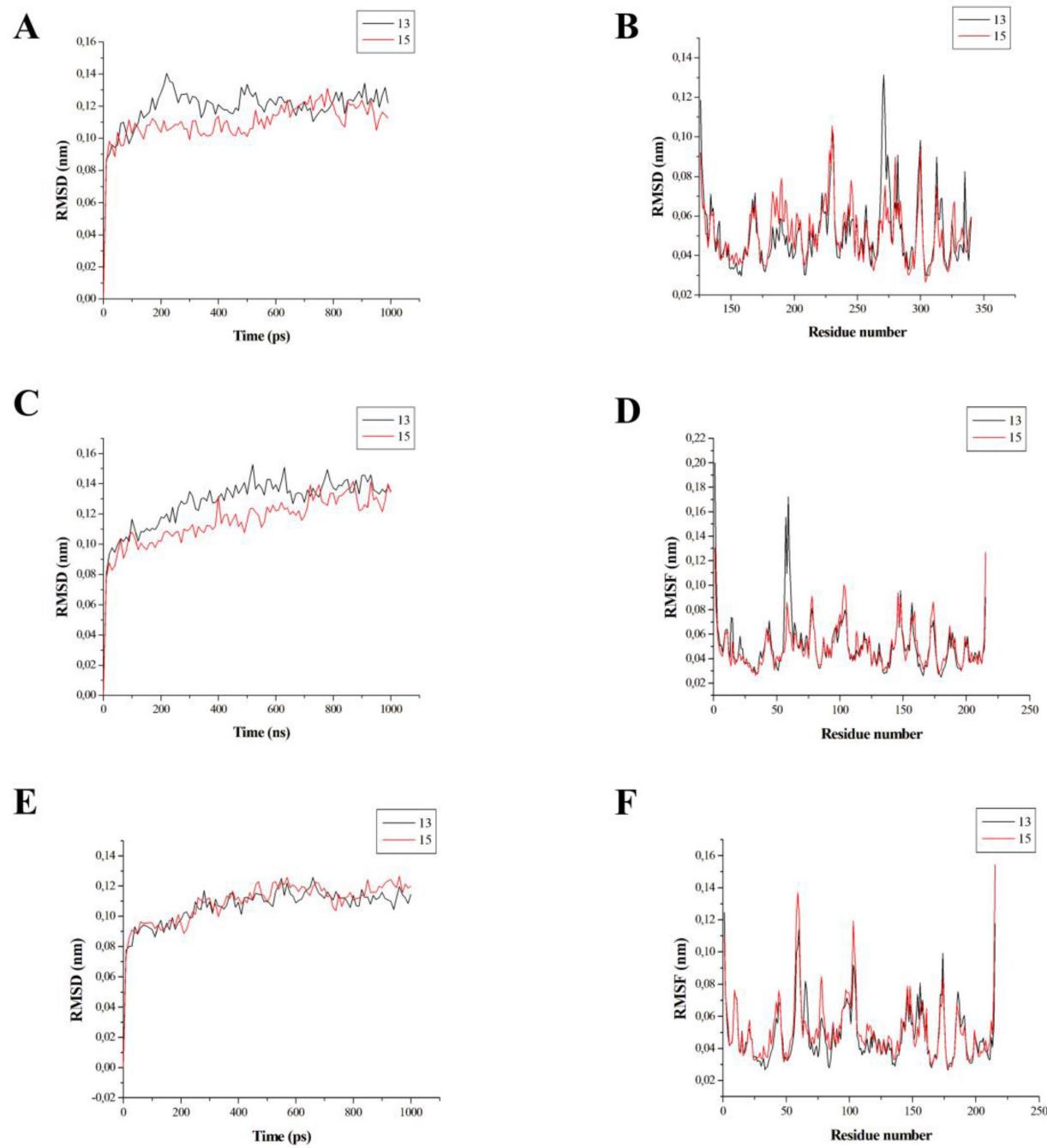


Figure S4. Structural elucidation of 4-Bromo-N'-(1,4-dioxo-1,4-dihydronaphthalen-2-yl)benzohydrazide (16).



**Figure S5.** Graphical representation of RMSD and RMSF of all systems submitted to molecular dynamics simulations.