**Comparative surface interaction study to detect *Brucella melitensis* 16M using biosensor transducer modifications with 4-MBA, ZnONPs/AuNPs, ZnONPs/AuNPs/4-MBA**

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E-mail: dtselvam.drde@gov.in

**Supplementary Data Set**

**Analysis Results XRD AuNPs**

**General Information**

|  |  |
| --- | --- |
| Analysis date | 2020/02/12 16:29:00 |
| Sample name | AuNPs XRD | Measurement date | 2020/02/12 16:05:51 |
| File name | LINK.ras | Operator | administrator |
| Comment |   |

**Measurement profile**

**Measurement conditions**

|  |  |  |  |
| --- | --- | --- | --- |
| X-Ray | 40 kV , 15 mA | Scan speed / Duration time | 10.0000 deg/min |
| Goniometer | MiniFlex 300/600 | Step width | 0.0200 deg |
| Attachment | Standard Sample Holder | Scan axis | Theta/2-Theta |
| Filter | None | Scan range | 2.0000 - 90.0000 deg |
| CBO selection slit | - | Incident slit | 1.250deg |
| Diffracted beam mono. | None | Length limiting slit | 10.0mm |
| Detector | D/teX Ultra | Receiving slit #1 | 13.0mm(Open) |
| Scan mode | CONTINUOUS | Receiving slit #2 | 13.0mm |

**Peak list**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| No. | 2-theta(deg) | d(ang.) | Height(cps) | FWHM(deg) | Int. I(cps deg) | Int. W(deg) | Asym. factor |
| 1 | 2.808(14) | 31.44(15) | 2417(142) | 0.79(4) | 3366(122) | 1.39(13) | 0.50(9) |
| 2 | 4.41(4) | 20.00(18) | 971(90) | 2.77(14) | 3549(160) | 3.7(5) | 0.51(11) |
| 3 | 22.70(12) | 3.91(2) | 738(78) | 4.08(16) | 3212(151) | 4.3(7) | 0.69(8) |
| 4 | 38.058(6) | 2.3625(4) | 24678(453) | 0.606(7) | 23165(101) | 0.94(2) | 1.09(5) |
| 5 | 44.207(14) | 2.0471(6) | 7379(248) | 1.131(14) | 11576(92) | 1.57(7) | 0.95(5) |
| 6 | 64.478(11) | 1.4440(2) | 8262(262) | 0.835(13) | 11565(56) | 1.40(5) | 0.93(6) |
| 7 | 77.478(14) | 1.23096(19) | 9504(281) | 0.886(16) | 13499(75) | 1.42(5) | 1.29(11) |
| 8 | 81.56(2) | 1.1793(3) | 2458(143) | 0.927(19) | 2555(57) | 1.04(8) | 0.94(10) |

**Analysis Results XRD ZnONPs**

**General Information**

|  |  |
| --- | --- |
| Analysis date | 2019/06/25 14:17:10 |
| Sample name | ZnONPs XRD | Measurement date | 2019/06/25 13:39:29 |
| File name | ZnO 60m.ras | Operator | administrator |
| Comment |   |

**Measurement profile**

**Measurement conditions**

|  |  |  |  |
| --- | --- | --- | --- |
| X-Ray | 40 kV , 15 mA | Scan speed / Duration time | 10.0000 deg/min |
| Goniometer | MiniFlex 300/600 | Step width | 0.0200 deg |
| Attachment | Standard Sample Holder | Scan axis | Theta/2-Theta |
| Filter | None | Scan range | 2.0000 - 90.0000 deg |
| CBO selection slit | - | Incident slit | 1.250deg |
| Diffracted beam mono. | None | Length limiting slit | 10.0mm |
| Detector | D/teX Ultra | Receiving slit #1 | 13.0mm(Open) |
| Scan mode | CONTINUOUS | Receiving slit #2 | 13.0mm |

**Peak list**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| No. | 2-theta(deg) | d(ang.) | Height(cps) | FWHM(deg) | Int. I(cps deg) | Int. W(deg) | Asym. factor |
| 1 | 2.536(17) | 34.8(2) | 1749(121) | 0.34(5) | 1061(101) | 0.61(10) | 0.5(2) |
| 2 | 15.3898(14) | 5.7528(5) | 74456(788) | 0.1023(11) | 8760(62) | 0.118(2) | 1.70(10) |
| 3 | 18.799(4) | 4.7166(11) | 9500(281) | 0.145(3) | 1574(31) | 0.166(8) | 2.0(3) |
| 4 | 20.507(17) | 4.327(4) | 985(91) | 0.14(3) | 175(24) | 0.18(4) | 2.3(14) |
| 5 | 20.780(10) | 4.271(2) | 3405(168) | 0.093(11) | 389(21) | 0.114(12) | 2.3(14) |
| 6 | 27.50(2) | 3.240(2) | 1792(122) | 0.13(4) | 395(39) | 0.22(4) | 1.7(16) |
| 7 | 30.1850(10) | 2.95837(10) | 83292(833) | 0.0895(12) | 9280(62) | 0.1114(19) | 1.28(6) |
| 8 | 35.14(2) | 2.5521(14) | 2204(136) | 0.28(4) | 1090(52) | 0.49(5) | 1.8(5) |
| 9 | 38.9225(18) | 2.31203(10) | 331160(1661) | 0.2519(13) | 117653(224) | 0.355(2) | 1.10(3) |
| 10 | 41.29(2) | 2.1850(12) | 1164(98) | 0.17(5) | 364(36) | 0.31(6) | 1.5(12) |
| 11 | 45.095(7) | 2.0089(3) | 7587(251) | 0.363(13) | 3885(73) | 0.51(3) | 1.24(10) |
| 12 | 45.4906(14) | 1.99231(6) | 35341(543) | 0.0872(14) | 4340(66) | 0.123(4) | 1.24(10) |
| 13 | 56.656(13) | 1.6233(3) | 811(82) | 0.21(5) | 235(30) | 0.29(7) | 3(4) |
| 14 | 61.683(6) | 1.50254(14) | 3565(172) | 0.093(6) | 383(22) | 0.107(11) | 1.3(4) |
| 15 | 65.25(3) | 1.4287(5) | 1581(115) | 0.33(5) | 850(34) | 0.54(6) | 1.3(5) |
| 16 | 78.086(18) | 1.2229(2) | 2461(143) | 0.45(3) | 1777(35) | 0.72(6) | 0.59(13) |
| 17 | 79.366(10) | 1.20634(12) | 1952(128) | 0.090(11) | 243(18) | 0.124(17) | 1.4(7) |
| 18 | 82.262(7) | 1.17105(8) | 6542(233) | 0.341(11) | 3420(34) | 0.52(2) | 0.89(9) |

**Samples View 1 Results: (ZnONPs FTIR)**

**Administrator**

**Friday, July 12, 2019**

|  |  |
| --- | --- |
| **Spectrum Name** | **Number Of Peaks** |
| ZnONPs | 8 |
| unknown\_1 | 8 |

**unknown\_1 Details:**

|  |  |  |
| --- | --- | --- |
| **Peak Number** | **X (cm-1)** | **Y (%T)** |
| 1 | 3481.66 | 94.6 |
| 2 | 1504.14 | 89.24 |
| 3 | 1391.31 | 86.85 |
| 4 | 1227.79 | 90.12 |
| 5 | 1021.04 | 85.47 |
| 6 | 995.94 | 84.14 |
| 7 | 826.28 | 78.19 |
| 8 | 647.86 | 72.25 |

**Element Composition SEM-EDX AuNPs**

Spectrum processing :

Peaks possibly omitted : 0.269, 0.522, 1.042, 6.405, 7.740 keV

Processing option : All elements analyzed (Normalised)

Number of iterations = 1

Standard :

Au Au 1-Jun-1999 12:00 AM

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Weight% | Atomic% |  |
|  |  |  |  |
| Au M | 100.00 | 100.00 |  |
|  |  |  |  |
| Totals | 100.00 |  |  |

**Element Composition SEM-EDX ZnONPs**

Spectrum processing :

Peaks possibly omitted : 0.269, 3.697, 5.031 keV

Processing option : All elements analyzed (Normalised)

Number of iterations = 3

Standard :

O SiO2 1-Jun-1999 12:00 AM

Zn Zn 1-Jun-1999 12:00 AM

Au Au 1-Jun-1999 12:00 AM

|  |  |  |  |
| --- | --- | --- | --- |
| Element | Weight% | Atomic% |  |
|  |  |  |  |
| O K | 25.20 | 59.75 |  |
| Zn K | 66.62 | 38.67 |  |
| Au M | 8.18 | 1.58 |  |
|  |  |  |  |
| Totals | 100.00 |  |  |

**Optimization with ZnONPs and AuNPs SPR-Biosensing**

 ZnO-gold-NPs

Association1:

Region Association

Model Monophasic

Method Integrated Rate Equation

Step Size 0.01

Number of Steps 25

ka (-4.5 ± 2.3) E5 [1/(s M)]

kd 0.62 ± 0.03 [1/s]

Fit errors estimated from Monte Carlo No

 Concentration Unit Start Stop Chi Squared Fitting Iterations ks ks Error Req Req Error R₀ R₀ Error Req + R₀ Req + R₀ Error

ZnO-Au-SPR-Au-rOMP 28-Ab-Ag-interaction-04.06.19009 Channel 2 3.3000E-6 nM 120 600 2.3385E+3 26 0.5078 0 42.6872 0 0 0 42.6872 0

 Correlation ks Req R₀

 ks

 Req --

 R₀ -- --

ZnO-Au-SPR-Au-rOMP 28-Ab-Ag-interaction-04.06.19010 Channel 2 0.0003 nM 120 600 1.4076E+3 39 0.6652 0.0274 53.6979 0.9662 -4.6301 0.9658 49.0678 1.3661

 Correlation ks Req R₀

 ks

 Req 0.4062

 R₀ -0.4101 -0.9989

ZnO-Au-SPR-Au-rOMP 28-Ab-Ag-interaction-04.06.19011 Channel 2 0.0033 nM 120 600 1.1504E+3 49 0.6220 0.0205 64.6397 0.9587 -9.3029 0.9583 55.3368 1.3555

 Correlation ks Req R₀

 ks

 Req 0.4151

 R₀ -0.4192 -0.9989

ZnO-Au-SPR-Au-rOMP 28-Ab-Ag-interaction-04.06.19012 Channel 2 0.3300 nM 120 600 1.3816E+3 43 0.6140 0.0174 74.3317 0.9572 -8.6034 0.9567 65.7283 1.3533

 Correlation ks Req R₀

 ks

 Req 0.4168

 R₀ -0.4209 -0.9988

ZnO-Au-SPR-Au-rOMP 28-Ab-Ag-interaction-04.06.19013 Channel 2 3.3300 nM 120 600 2.4598E+3 65 0.6828 0.0144 88.7342 0.9675 -10.5774 0.9669 78.1568 1.3678

 Correlation ks Req R₀

 ks

 Req 0.4464

 R₀ -0.4504 -0.9989

ZnO-Au-SPR-Au-rOMP 28-Ab-Ag-interaction-04.06.19013001 Channel 2 333.3000 nM 120 600 7.8060E+3 42 0.4676 0.0070 118.9281 0.9215 -11.8344 0.9212 107.0937 1.3030

 Correlation ks Req R₀

 ks

 Req 0.4527

 R₀ -0.4578 -0.9988

Number of Iterations: 100

Number of Plots: 6

Variation: 100

ZnO-Au-SPR-Au-rOMP 28-Ab-Ag-interaction-04.06.19009 Channel 2

Fit ChiSq Req R₀

887.259378757866 41.439875015635 -0.494716509808167

887.259378757866 41.4398750156119 -0.494716509785189

887.259378757866 41.439875015635 -0.49471650980823

887.259378757866 41.4398750379584 -0.494716532051311

887.259378757866 41.439875015635 -0.494716509808229

887.259378757865 41.4398750156107 -0.49471650978399

887.259378757866 41.439875015635 -0.494716509808209

887.259378757866 41.439875015635 -0.494716509808217

887.259378757865 41.4398749063708 -0.494716400937169

887.259378757866 41.439875015635 -0.494716509808228

887.259378757866 41.439875015635 -0.49471650980822

887.259378757866 41.439875015635 -0.494716509808216

887.259378757866 41.439875015635 -0.494716509808221

887.259378757866 41.4398746894764 -0.494716184823125

887.259378757866 41.439875015635 -0.494716509808224

887.259378757866 41.439875015635 -0.494716509808216

887.259378757866 41.439875015635 -0.494716509808222

887.259378757866 41.439875015635 -0.494716509808235

887.259378757866 41.439875015635 -0.494716509808224

887.259378757866 41.439875015635 -0.494716509808217

887.259378757866 41.4398750156138 -0.494716509787045

887.259378757866 41.439875015635 -0.494716509808229

887.259378757866 41.439875015635 -0.494716509808217

887.259378757865 41.4398749765434 -0.494716470857213

887.259378757866 41.439875015635 -0.494716509808223

887.259378757866 41.439875015635 -0.494716509808228

887.259378757865 41.4398750156122 -0.494716509785523

887.259378757866 41.439875015635 -0.494716509808209

887.259378757866 41.439875015635 -0.494716509808234

887.259378757866 41.439875015635 -0.494716509808222

887.259378757866 41.439875015635 -0.494716509808217

887.259378757866 41.439875015635 -0.494716509808217

887.259378757866 41.4398750156138 -0.494716509787072

887.259378757866 41.439875015635 -0.494716509808223

887.259378757866 41.439875015635 -0.494716509808227

887.259378757865 41.4398747182066 -0.49471621344989

887.259378757866 41.4398750156347 -0.494716509807866

887.259378757866 41.439875015635 -0.494716509808238

887.259378757866 41.439875015635 -0.494716509808223

887.259378757866 41.439875015635 -0.49471650980822

887.259378757866 41.439875015635 -0.49471650980822

887.259378757866 41.4398750156352 -0.494716509808443

887.259378757866 41.4398748733287 -0.494716368013954

887.259378757866 41.439875015635 -0.494716509808227

887.259378757866 41.439875015635 -0.494716509808223

887.259378757866 41.439875015635 -0.494716509808227

887.259378757866 41.439875015635 -0.494716509808217

887.259378757866 41.439875015635 -0.494716509808216

887.259378757866 41.4398746908823 -0.494716186223915

887.259378757866 41.439875015635 -0.494716509808229

887.259378757866 41.439875015635 -0.494716509808203

887.259378757866 41.439875015635 -0.494716509808222

887.259378757866 41.439875015635 -0.49471650980822

887.259378757866 41.439875015635 -0.494716509808223

887.259378757865 41.4398750156109 -0.494716509784185

887.259378757866 41.439875015635 -0.494716509808215

887.259378757866 41.439875015635 -0.494716509808222

887.259378757866 41.439875015635 -0.494716509808222

887.259378757866 41.439875015635 -0.494716509808227

887.259378757865 41.4398751639225 -0.494716657562201

887.259378757866 41.4398750156352 -0.494716509808394

887.259378757865 41.4398750157153 -0.494716509888218

887.259378757866 41.439875015635 -0.494716509808231

887.259378757866 41.439875015635 -0.494716509808239

887.259378757866 41.439875015635 -0.494716509808221

887.259378757866 41.4398750156349 -0.494716509808139

887.259378757866 41.439875015635 -0.494716509808216

887.259378757866 41.439875015635 -0.494716509808222

887.259378757866 41.4398750156366 -0.494716509809771

887.259378757866 41.439875015635 -0.49471650980822

887.259378757866 41.439875015635 -0.494716509808215

887.259378757866 41.439875015635 -0.494716509808223

887.259378757865 41.4398750017794 -0.4947164960025

887.259378757866 41.439875015635 -0.49471650980821

887.259378757866 41.4398750156353 -0.494716509808507

887.259378757866 41.439875015635 -0.494716509808224

887.259378757866 41.439875015635 -0.494716509808224

887.259378757866 41.439875015635 -0.494716509808215

887.259378757866 41.439875015635 -0.494716509808227

887.259378757866 41.439875015635 -0.494716509808212

887.259378757866 41.439875015635 -0.494716509808216

887.259378757866 41.439875015635 -0.494716509808223

887.259378757866 41.439875015635 -0.494716509808224

887.259378757866 41.4398750156725 -0.494716509845532

887.259378757865 41.4398750156354 -0.494716509808571

887.259378757866 41.439875015635 -0.494716509808221

887.259378757866 41.4398750150805 -0.494716509255676

887.259378757866 41.439875015635 -0.494716509808223

887.259378757866 41.439875015635 -0.494716509808223

887.259378757866 41.439875015635 -0.494716509808216

887.259378757866 41.439875015635 -0.494716509808222

887.259378757866 41.439875015635 -0.494716509808217

887.259378757866 41.439875015635 -0.49471650980822

887.259378757865 41.4398748252804 -0.494716320138523

887.259378757866 41.439875015635 -0.494716509808215

887.259378757866 41.439875015635 -0.494716509808217

887.259378757866 41.439875015635 -0.494716509808209

887.259378757866 41.439875015635 -0.494716509808221

887.259378757866 41.439875015635 -0.494716509808233

887.259378757866 41.439875015635 -0.494716509808209

ZnO-Au-SPR-Au-rOMP 28-Ab-Ag-interaction-04.06.19010 Channel 2

Fit ChiSq ks Req R₀

1407.66255271422 0.669139764651589 53.7498035208886 -4.68259065970277

1407.68500507511 0.66974018730537 53.758990946376 -4.69186274215711

1407.57900150103 0.666048491948884 53.7084902154282 -4.64083734138093

1407.64562475126 0.668646874039072 53.742721776358 -4.67543880156893

1407.59538474373 0.666846236153976 53.7189746614834 -4.65143414267229

1407.654357225 0.668905472530462 53.7452900628228 -4.67804659261222

1407.66129341816 0.669104307989026 53.7490627878984 -4.68184542765606

1407.62786847552 0.668081199272372 53.7353013150152 -4.66793670920949

1407.70215869871 0.670162123195275 53.757979207129 -4.69092898027999

1407.5954642713 0.666849705555952 53.7189924357271 -4.65145247511249

1407.58693650868 0.666456837739686 53.7137473923233 -4.64615215596339

1407.76031893396 0.671456244540944 53.7815121635489 -4.71463870604186

1407.70323109831 0.670191793260422 53.7652097830562 -4.69814736906563

4920.91739978664 0.00177363685679098 -3.78697678207841 50.1067474253438

1407.5581683417 0.664499152737223 53.6690610336268 -4.60123682084685

1407.75941651871 0.671438080471322 53.7824897787095 -4.71561064603825

1407.7567824981 0.671383630260062 53.78168089299 -4.71479382122278

1407.56370555623 0.665057435118643 53.6956044557703 -4.6278131930629

1407.73794761741 0.670983523309297 53.7747940762576 -4.707851128156

1407.61466901408 0.667617825030256 53.7291531711774 -4.66172229563865

1407.65557114652 0.668941328618333 53.7470971982468 -4.67985570599366

1407.57926165405 0.666062714284716 53.7086942652544 -4.64104334332143

1407.5532456142 0.663894819218498 53.6668202710012 -4.59890022871544

1407.66898057006 0.669316392438622 53.7507278055735 -4.6835440819783

1407.55255402217 0.663799613600662 53.6701278748972 -4.60218400100836

1407.56138820997 0.664865035116619 53.693109770524 -4.62529181862133

1407.67303273316 0.669424367153381 53.7499343640945 -4.68277176891538

1407.73551522148 0.670930502104744 53.7740675843206 -4.70711680335875

1407.70947804318 0.670339937108864 53.7660048015063 -4.69896706856598

1407.67209794161 0.669400699475516 53.7518366613226 -4.68466525074254

1407.69863994414 0.67007881809372 53.7598238141457 -4.69275418114938

1407.76431069641 0.671538341983537 53.7839038557415 -4.71703953946375

1407.68192735063 0.669660218285519 53.7560578019691 -4.68892242174224

1407.62080018031 0.667838323832482 53.7319915139016 -4.66459233592717

1407.7583678414 0.671416120813541 53.7811808285461 -4.71430087670021

1407.60762420728 0.667351235812006 53.725676105012 -4.65820713189811

1407.67138411591 0.669382154697613 53.7528825755132 -4.68570533435526

1407.79476540194 0.672138093469779 53.7912061349031 -4.72443366491874

1407.55543091601 0.664252931245526 53.6852029578285 -4.61730043856007

1407.68440505188 0.669724511968691 53.7579954035402 -4.69086680993774

1407.55412731678 0.664078357233844 53.6829500803523 -4.61502355159072

1407.65333240839 0.668876237323811 53.7460161415207 -4.67876574094324

1407.73060097183 0.670822490902942 53.7730086107811 -4.70604086961997

1407.71243864044 0.67040927854209 53.7667345872437 -4.69970755488291

1407.55348348158 0.663982062826255 53.681708714452 -4.61376896061727

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1407.7051399781 0.670238056160897 53.76765531926 -4.70059528628564

1407.66331603447 0.669161200856927 53.7503445523728 -4.68313418683265

1407.74892463586 0.671220058617161 53.7860275310812 -4.71910021246582

1407.56310692294 0.665009386271916 53.6949822891483 -4.62718435335406

1407.55607361174 0.664276963230523 53.668811697806 -4.60095078645107

1407.59316298928 0.666747616122285 53.7177000198807 -4.65014549931713

1407.59002055976 0.666603623502582 53.7156660043762 -4.64809148801708

1407.55773199994 0.664441466796411 53.6665950435688 -4.59876708272672

1407.68547663692 0.669751012724565 53.7564759485564 -4.68935576583773

1407.55809922921 0.664554777014723 53.6890977950688 -4.62123691014452

1407.64216850175 0.668541133289852 53.7413458059583 -4.67404750091936

1407.81241820452 0.672469492466072 53.7969715480516 -4.73024593189145

1407.68439811075 0.669724634653966 53.7587474245072 -4.69161703243047

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1407.70093365376 0.670135818662706 53.7630241600034 -4.69595699715275

1407.56284687713 0.664988183486926 53.6947199545492 -4.62691904591826

1407.67637595496 0.669515590660311 53.7551825471373 -4.68802349737356

1407.55189436313 0.663675217947951 53.669872368104 -4.60190838919679

1407.73048322368 0.670819733413111 53.7725911908852 -4.70562396316497

1407.72241442852 0.670638850360891 53.7700801894887 -4.70308639754431

1407.71790941707 0.670537095322604 53.7719754315359 -4.70495870905868

1407.71937573103 0.670569821167669 53.7695437931306 -4.70253885796834

1407.56012781705 0.664675906571566 53.6680794916393 -4.60028739107991

1407.68926998719 0.669848451071941 53.7605279078223 -4.69341532903875

1407.55345339869 0.66182554926776 53.6679749105288 -4.5997109507047

1407.61948988545 0.667791963975558 53.7312930415022 -4.66388743756115

1407.625871898 0.668013738518955 53.7343765277734 -4.66700232181159

1407.55722429023 0.664462111091742 53.6878962852048 -4.62002261641948

1407.55433624269 0.66169422332282 53.6668003706969 -4.59851783558926

1407.67486667086 0.669474700828165 53.7528278213928 -4.68566718636235

1407.70961507147 0.670344176008747 53.7691258945044 -4.70208136315128

1407.64681985022 0.668683051391507 53.7432991970268 -4.67602121402505

1407.78679936649 0.671985115355132 53.7899262033537 -4.72312882496381

1407.77244722997 0.671702231708384 53.7851540782974 -4.71831659791941

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1407.5547869266 0.661639506479176 53.6674963124798 -4.59920322569697

1407.55573651343 0.661525303564164 53.6676910542427 -4.59937895729652

1407.59142065485 0.666668461561364 53.7166065331529 -4.64904095673535

1407.67653840077 0.669519882037634 53.7552416235939 -4.6880831954587

1407.79944395672 0.672227267005675 53.7935295872791 -4.72676782949633

1407.58668614827 0.666444745808591 53.7137321957809 -4.64613490967535

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1407.73745559103 0.670972987909023 53.7750721061306 -4.70812657733325

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1407.5511954415 0.662248270124634 53.6680610809568 -4.5998659303091

1407.76135998771 0.671477725715636 53.7821031659931 -4.7152321835152

1407.66646136249 0.669247984920351 53.7508144133633 -4.68361832225787

1407.7008564883 0.670134196670635 53.763580289507 -4.69651148895043

1407.63847989893 0.668426119801331 53.7398910809238 -4.67257602311242

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1407.59102857836 0.666650463270269 53.7164256540176 -4.64885740176547

1407.81828772773 0.672577607129983 53.8009726315716 -4.73425719876068

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ZnO-Au-SPR-Au-rOMP 28-Ab-Ag-interaction-04.06.19011 Channel 2

Fit ChiSq ks Req R₀

1150.42813842533 0.621539569294879 64.6312118340442 -9.29431710150516

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1150.4281479354 0.621565209169505 64.6317108960858 -9.29482088334701

1150.42814911081 0.621455804275887 64.6295818832286 -9.29267174202819

1150.42814554103 0.621560051230373 64.6316104949528 -9.29471953261297

1150.42815121944 0.621571565474677 64.6318346276491 -9.29494578522275

1150.42814588466 0.621560824770021 64.6316255520028 -9.29473473207127

1150.42813825283 0.621484485056301 64.6301398893178 -9.29323502210861

1150.428158755 0.621584071137045 64.6320780746044 -9.29519153497959

1150.42813509227 0.621518473476868 64.6308012700969 -9.29390265539695

1150.42814352205 0.621555229841562 64.6315166473941 -9.29462479747085

1150.42814863901 0.621456738474537 64.6296000574189 -9.29269008797385

1150.42814607894 0.621561256757105 64.6316339607147 -9.29474322031245

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1150.42814538893 0.621463665150398 64.6297348139444 -9.29282611805461

1150.42814439611 0.621557379610474 64.631558492002 -9.29466703782915

1150.42813871637 0.621540692041105 64.6312336860751 -9.2943391601792

1150.42814722981 0.621459628491462 64.6296562812779 -9.29274684318458

1150.42814167967 0.621473059875166 64.6299175936211 -9.29301062524919

1150.42814744712 0.621564198467907 64.6316912221991 -9.29480102338037

1150.42813832908 0.621539187930684 64.6312044115754 -9.29430960884644

1150.42814445334 0.621465852787059 64.6297773748331 -9.29286908119105

1150.42814330176 0.621468698087658 64.6298327314424 -9.29292496099172

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1150.428144657 0.621465367780669 64.6297679388985 -9.29285955607575

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1150.42814533589 0.621463786480904 64.6297371744395 -9.29282850085886

1150.42815433128 0.621577020461659 64.6319408175424 -9.29505297955568

1150.4281459563 0.621462385764718 64.6297099234819 -9.29280099235271

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1150.42813868707 0.621482786210416 64.6301068346185 -9.29320165496126

1150.42814237275 0.621471138708142 64.6298802154865 -9.29297289383021

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1150.42813857147 0.621540138613449 64.6312229146858 -9.29432828693035

1150.42814415802 0.621556804165736 64.6315472910955 -9.29465573098805

1150.42813836145 0.62148405028893 64.6301314299553 -9.29322648278394

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1150.42814248534 0.621470835148849 64.6298743094863 -9.29296693200911

1150.4281432628 0.621554571482711 64.6315038327324 -9.29461186161423

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1150.42814678982 0.621460564271628 64.6296744866069 -9.29276522056812

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1150.42813865802 0.621540470449393 64.6312293732211 -9.29433480654065

1150.42814288756 0.621469768667792 64.6298535602803 -9.2929459866919

1150.4281415234 0.621549862017593 64.6314121664065 -9.2945193283697

1150.42814962399 0.621454805594417 64.6295624546696 -9.29265212986077

1150.42813846762 0.621539735250797 64.631215064039 -9.29432036204429

1150.42814032623 0.621477118014068 64.6299965498386 -9.29309032774862

1150.42814390988 0.621556196535239 64.6315354637375 -9.29464379177127

1150.42814227125 0.621471414322636 64.6298855778056 -9.2929783068316

1150.42814532281 0.621559553529715 64.6316008071776 -9.29470975321208

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1150.42814840827 0.621457201169391 64.6296090588616 -9.29269917448521

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1150.42814800328 0.621458022962898 64.6296250464018 -9.29271531311726

1150.42814375869 0.621555822208328 64.6315281775878 -9.29463643671209

1150.42814787953 0.62145827659597 64.6296299807076 -9.29272029405549

1150.4281481271 0.621565600808892 64.6317185195998 -9.2948285789662

1150.42814305624 0.621469329408704 64.6298450141925 -9.29293735983119

1150.42813861728 0.621540314709201 64.6312263420425 -9.29433174669776

1150.42815106306 0.621452094243547 64.6295097080024 -9.29259888472139

1150.42814278313 0.621553325994881 64.63147958999 -9.29458738959724

1150.42813995952 0.6215450653477 64.6313188050732 -9.29442508411914

1150.42814611761 0.621561342298231 64.6316356257915 -9.29474490113754

1150.42814608417 0.621561268324994 64.6316341858862 -9.29474344761356

1150.42814592649 0.621462452170392 64.6297112154009 -9.29280229648151

1150.42814827749 0.621457465172978 64.6296141948984 -9.29270435906051

1150.42814835851 0.621457301464926 64.6296110100523 -9.29270114411575

1150.42813834848 0.621539265214376 64.6312059157421 -9.29431112723716

3540.9108178005 20.6403586138557 49.3206241151585 5.85691500719416

1150.42813839171 0.621539436683162 64.6312092530284 -9.29431449608225

1150.42813873574 0.621482601987155 64.6301032501768 -9.29319803663805

1150.42814573935 0.621560499163879 64.6316192140292 -9.29472833415362

1150.42814312621 0.62146914854143 64.6298414953012 -9.29293380768124

1150.42814732484 0.621459428559324 64.6296523916685 -9.29274291681541

1150.42813975193 0.621478991885273 64.6300330089464 -9.29312713146989

1150.42813873268 0.621482613563037 64.6301034754092 -9.29319826399947

1150.42814169232 0.621473023961161 64.6299168948764 -9.29300991990019

1150.42813827467 0.621484397093187 64.630138177799 -9.29323329441159

1150.42814852241 0.621456971805461 64.6296045967252 -9.2926946701791

1150.4281383246 0.621539170059579 64.6312040637515 -9.29430925773342

ZnO-Au-SPR-Au-rOMP 28-Ab-Ag-interaction-04.06.19012 Channel 2

Fit ChiSq ks Req R₀

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1381.6197288161 0.614057865231468 74.3324185329807 -8.60411757857258

1381.6197288204 0.614057776494672 74.3324165042687 -8.60411553056415

1381.61972876158 0.614064423067773 74.3325684620453 -8.60426893375458

1381.61972888452 0.614056628601226 74.3323902610788 -8.60408903775875

1381.61972885452 0.61405713073451 74.3324017408497 -8.60410062672064

1381.61972876005 0.614059293151024 74.3324511784079 -8.60415053451454

1381.61972886123 0.614066652961538 74.3326194445088 -8.60432040117881

1381.61972886641 0.614056925488346 74.3323970485078 -8.60409588974704

1381.61972885132 0.614066479383797 74.3326154759452 -8.60431639486472

1381.6197287848 0.614065082477729 74.3325835381835 -8.6042841533006

1381.61972879992 0.614058219057942 74.3324266222175 -8.60412574475171

1381.61972895522 0.614068063397633 74.3326516919139 -8.60435295533583

1381.61972875498 0.614059464548382 74.3324550969527 -8.60415449033172

1381.61972875855 0.61405934268917 74.3324523109655 -8.60415167784478

1381.619728752 0.614059571259893 74.3324575366296 -8.60415695321439

1381.61972882434 0.614057696741905 74.3324146809517 -8.60411368990431

1381.61972875629 0.614064247663371 74.3325644517716 -8.6042648853343

1381.61972876456 0.614064516761061 74.3325706041582 -8.60427109624372

1381.61972875501 0.61405946331334 74.3324550687167 -8.60415446182719

1381.61972875712 0.614064276123444 74.3325651024544 -8.60426554220657

1381.61972880546 0.614065572552074 74.3325947428276 -8.60429546452652

1381.61972885071 0.614057198334721 74.3324032863283 -8.60410218689927

1381.61972890553 0.614056304123731 74.3323828428927 -8.6040815490141

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1381.61972875735 0.614059383010711 74.3324532328102 -8.60415260845788

1381.61972876399 0.614059167800111 74.3324483125952 -8.60414764144284

1381.61972876087 0.614059266742467 74.3324505746468 -8.60414992501062

1381.61972888295 0.614067013131568 74.3326276792048 -8.6043287142066

1381.61972875571 0.614059439187238 74.3324545171373 -8.60415390500128

1381.61972875625 0.614059420612198 74.3324540924683 -8.60415347629288

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1381.6197287563 0.61406424797485 74.3325644588929 -8.60426489252339

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1381.61972876284 0.614059203704065 74.3324491334427 -8.60414847009802

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1381.61972925027 0.614071200054913 74.3327234076268 -8.60442535325436

1381.61972875986 0.614064367257293 74.3325671860489 -8.60426764562065

1381.61972901289 0.614068788643236 74.3326682736207 -8.60436969477676

1381.61972887628 0.614056761511406 74.3323932996679 -8.60409210524965

1381.61972889538 0.614056458431248 74.3323863706606 -8.60408511033656

1381.61972940567 0.614051179916344 74.3322656954582 -8.60396328734985

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1381.61972880763 0.614065620445261 74.3325958378185 -8.60429656993334

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1381.61972878722 0.614058523108973 74.3324335734939 -8.60413276214669

1381.61972882328 0.614065948647489 74.3326033415763 -8.60430414506932

1381.61972875226 0.614064104974066 74.3325611894668 -8.6042615919978

1381.61972878965 0.614065203997019 74.3325863164944 -8.60428695803957

1381.61972876131 0.614059252579368 74.3324502508455 -8.60414959812933

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1381.61972883952 0.614066263849236 74.3326105481152 -8.60431142015931

1381.6197287588 0.614064332489869 74.3325663911607 -8.60426684317125

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ZnO-Au-SPR-Au-rOMP 28-Ab-Ag-interaction-04.06.19013 Channel 2

Fit ChiSq ks Req R₀

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ZnO-Au-SPR-Au-rOMP 28-Ab-Ag-interaction-04.06.19013001 Channel 2

Fit ChiSq ks Req R₀

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