

SUPPLEMENTARY MATERIAL

X-ray crystallographic data for **1** (DS2 and DS3) and for **2** (DS5) in CIF format file are available free of charge from the Cambridge Crystallographic Data Centre *via* www.ccdc.cam.ac.uk/data_request/cif (deposition numbers, CCDC 745049 - 745051).

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#####
# CIF Formatted file for the structures relevant the paper: #
# Title: Effect of Free Water Molecule Content on the Structure of #
#         Mg-ATP-Dipyridylamine. Overview on Metal-Adenosine Triphosphate #
#         Structures in Model Compounds and in Enzymes #
# # #
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# # #
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#               University of Siena, Via Aldo Moro 2, I-53100 Siena, Italy. #
#               School of chemistry, University of Southampton, #
#               Southampton, SO17 1BJ, United Kingdom #
# # #
# Email: cini@unisi.it (corresponding author) #
# # #
# The structures enclosed are three: mgatpDS2, mgatpDS3, caatpDS5 #
# # #
#####
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#####
data_mgatpDS2
#####
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hexaaquamagnesium(II) bis-2,2'-dipyridilamonium
bis-(adenosine 5'-triphosphate(3-))magnesiate(II)
dodeca-hydrate
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_computing_data_reduction         'XSCANS & XEMP (Siemens 1994) '
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'SHELXS (Sheldrick, 2008) & WINGX (Farrugia, 1999-2003) '
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'SHELXL (Sheldrick, 2008) & WINGX (Farrugia, 1999-2003) '
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'ORTEP-32/ORTEP-III (Farrugia, 2003) '
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'CIFTAB (Sheldrick, 1997) & PARST97 (Nardelli, 1997) '

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Refinement of F2 against ALL reflections. The weighted R-factor wR and
goodness of fit S are based on F2, conventional R-factors R are based
on F, with F set to zero for negative F2. The threshold expression of
F2 > 2sigma(F2) is used only for calculating R-factors(gt) etc. and is
not relevant to the choice of reflections for refinement. R-factors based
on F2 are statistically about twice as large as those based on F, and R-
factors based on ALL data will be even larger.
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'Flack H D (1983), Acta Cryst. A39, 876-881'
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P1 P 0.3484(3) -0.04429(10) 0.32509(7) 0.0422(6) Uani 1 1 d . . .
P2 P 0.5765(3) 0.02408(10) 0.34836(6) 0.0375(5) Uani 1 1 d . . .
P3 P 0.4172(3) 0.12489(10) 0.32366(7) 0.0431(6) Uani 1 1 d . . .
O2 O 0.2348(7) -0.0145(3) 0.3437(2) 0.0581(19) Uani 1 1 d . . .
O3 O 0.3841(7) -0.0363(3) 0.27924(17) 0.0476(17) Uani 1 1 d . . .
O4 O 0.4751(6) -0.0284(3) 0.35496(16) 0.0469(16) Uani 1 1 d . . .
O5 O 0.6736(7) 0.0180(3) 0.38399(17) 0.0539(18) Uani 1 1 d . . .
O6 O 0.6233(6) 0.0246(3) 0.30296(16) 0.0425(15) Uani 1 1 d . . .
O7 O 0.4916(8) 0.0803(2) 0.35728(17) 0.0503(17) Uani 1 1 d . . .
O8 O 0.2889(8) 0.1390(3) 0.34663(19) 0.061(2) Uani 1 1 d . . .
H8P H 0.3008 0.1387 0.3728 0.091 Uiso 0.50 1 calc PR . .
O9 O 0.3948(7) 0.0916(2) 0.28235(17) 0.0467(17) Uani 1 1 d . . .
O10 O 0.5064(10) 0.1773(3) 0.3202(2) 0.075(2) Uani 1 1 d . . .
O1' O 0.3970(7) -0.2046(3) 0.39408(18) 0.0460(16) Uani 1 1 d . . .
O2' O 0.0576(7) -0.2394(3) 0.3922(2) 0.066(2) Uani 1 1 d . . .
H2'O H 0.0647 -0.2745 0.3864 0.099 Uiso 1 1 calc R . .
O3' O 0.2505(10) -0.2979(3) 0.3414(2) 0.079(3) Uani 1 1 d . . .
H3'O H 0.2488 -0.3089 0.3666 0.118 Uiso 1 1 calc R . .
O5' O 0.3285(7) -0.1113(3) 0.33645(19) 0.0499(17) Uani 1 1 d . . .
O1WA O 0.033(2) 0.1274(18) 0.3142(7) 0.097(11) Uani 0.367(15) 1 d P . .
O1WB O 0.0899(16) 0.0829(6) 0.3112(4) 0.069(4) Uani 0.633(15) 1 d P . .
O2WA O -0.047(2) 0.1819(12) 0.2696(6) 0.088(9) Uani 0.367(15) 1 d P . .
O2WB O -0.1959(14) 0.1407(5) 0.2657(3) 0.078(5) Uani 0.633(15) 1 d P . .
O3WA O -0.144(2) 0.0570(13) 0.2565(7) 0.072(8) Uani 0.367(15) 1 d P . .
O3WB O -0.1198(14) 0.0203(7) 0.2743(5) 0.086(5) Uani 0.633(15) 1 d P . .
N1 N 0.2781(8) -0.1498(3) 0.5722(2) 0.0402(18) Uani 1 1 d . . .
H1 H 0.2788 -0.1475 0.5999 0.048 Uiso 0.50 1 calc PR . .
N3 N 0.2782(8) -0.2150(3) 0.5120(2) 0.0402(18) Uani 1 1 d . . .
N6 N 0.2644(8) -0.0483(3) 0.5683(2) 0.0430(19) Uani 1 1 d . . .
H6A H 0.2641 -0.0465 0.5960 0.052 Uiso 1 1 calc R . .
H6B H 0.2601 -0.0166 0.5533 0.052 Uiso 1 1 calc R . .
N7 N 0.2516(8) -0.0688(3) 0.4704(2) 0.0385(18) Uani 1 1 d . . .
N9 N 0.2594(9) -0.1601(3) 0.4449(2) 0.0401(19) Uani 1 1 d . . .
N1D N 0.5996(10) 0.0595(4) 0.4806(4) 0.065(3) Uani 0.86 1 d P . .
H1D H 0.5988 0.0285 0.4647 0.077 Uiso 0.50 1 calc PR . .
N2D N 0.6094(14) -0.0010(6) 0.5322(4) 0.032(3) Uani 0.50 1 d P . .
H2DA H 0.6379 -0.0032 0.5583 0.039 Uiso 0.50 1 calc PR . .
N1D1 N 0.933(3) 0.0421(12) 0.4624(8) 0.195(12) Uiso 0.86 1 d PD . .

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H1D1 H 0.9292 0.0047 0.4581 0.234 Uiso 0.50 1 calc PR . .
N2D1 N 0.930(2) 0.0222(16) 0.5293(12) 0.18(2) Uani 0.50 1 d PD . .
H2DB H 0.9186 0.0390 0.5539 0.212 Uiso 0.50 1 calc PR . .
C2 C 0.2840(10) -0.2040(4) 0.5530(3) 0.043(2) Uani 1 1 d . . .
H2 H 0.2930 -0.2362 0.5713 0.051 Uiso 1 1 calc R . .
C4 C 0.2682(10) -0.1651(3) 0.4888(2) 0.034(2) Uani 1 1 d . . .
C5 C 0.2654(8) -0.1081(3) 0.5042(2) 0.0283(17) Uani 1 1 d . . .
C6 C 0.2714(9) -0.1003(3) 0.5487(3) 0.0316(19) Uani 1 1 d . . .
C8 C 0.2470(10) -0.1023(3) 0.4369(3) 0.039(2) Uani 1 1 d . . .
H8 H 0.2359 -0.0875 0.4092 0.046 Uiso 1 1 calc R . .
C1' C 0.2725(10) -0.2084(4) 0.4136(2) 0.039(2) Uani 1 1 d . . .
H1' H 0.2672 -0.2459 0.4292 0.046 Uiso 1 1 calc R . .
C2' C 0.1716(10) -0.2090(4) 0.3783(3) 0.045(2) Uani 1 1 d . . .
H2' H 0.1479 -0.1683 0.3713 0.054 Uiso 1 1 calc R . .
C3' C 0.2459(12) -0.2355(4) 0.3399(3) 0.051(3) Uani 1 1 d . . .
H3' H 0.2108 -0.2214 0.3124 0.061 Uiso 1 1 calc R . .
C4' C 0.3857(11) -0.2128(4) 0.3476(3) 0.049(3) Uani 1 1 d . . .
H4' H 0.4475 -0.2435 0.3387 0.059 Uiso 1 1 calc R . .
C5' C 0.4221(11) -0.1565(4) 0.3251(3) 0.055(3) Uani 1 1 d . . .
H5'1 H 0.5094 -0.1445 0.3336 0.066 Uiso 1 1 calc R . .
H5'2 H 0.4218 -0.1625 0.2941 0.066 Uiso 1 1 calc R . .
C1D C 0.5986(11) 0.0529(4) 0.5258(4) 0.072(3) Uani 1.17 1 d P . .
C2D C 0.5883(11) 0.1030(4) 0.5489(3) 0.058(3) Uani 1 1 d . . .
H2D H 0.5797 0.1004 0.5787 0.070 Uiso 1 1 calc R . .
C3D C 0.5901(10) 0.1579(4) 0.5299(3) 0.048(2) Uani 1 1 d . . .
H3D H 0.5861 0.1919 0.5467 0.058 Uiso 1 1 calc R . .
C4D C 0.5979(11) 0.1613(4) 0.4861(3) 0.054(3) Uani 1 1 d . . .
H4D H 0.6007 0.1981 0.4730 0.065 Uiso 1 1 calc R . .
C5D C 0.6017(11) 0.1128(4) 0.4614(3) 0.053(3) Uani 1 1 d . . .
H5D H 0.6057 0.1159 0.4315 0.063 Uiso 1 1 calc R . .
C1D1 C 0.9358(12) 0.0623(9) 0.5019(7) 0.134(6) Uani 1.17 1 d PD . .
C2D1 C 0.9390(17) 0.1255(9) 0.5102(8) 0.137(8) Uani 1 1 d D . .
H2D1 H 0.9393 0.1401 0.5383 0.165 Uiso 1 1 calc R . .
C3D1 C 0.9416(15) 0.1614(10) 0.4768(8) 0.116(7) Uani 1 1 d D . .
H3D1 H 0.9424 0.2018 0.4817 0.139 Uiso 1 1 calc R . .
C4D1 C 0.9432(19) 0.1411(11) 0.4342(9) 0.166(9) Uani 1 1 d D . .
H4D1 H 0.9483 0.1662 0.4105 0.199 Uiso 1 1 calc R . .
C5D1 C 0.9362(14) 0.0767(11) 0.4302(8) 0.151(9) Uani 1 1 d D . .
H5D1 H 0.9338 0.0604 0.4027 0.181 Uiso 1 1 calc R . .
O1WD O 0.0000 -0.1381(7) 0.2500 0.178(9) Uani 1 2 d S . .
O2WD O 0.0000 -0.2559(5) 0.2500 0.160(10) Uani 1 2 d S . .
O3WD O 0.0038(18) -0.0628(9) 0.3251(7) 0.246(9) Uani 1 1 d . . .
O4WD O 0.2658(14) -0.1158(5) 0.2188(4) 0.141(4) Uani 1 1 d . . .
O5WD O 0.3029(17) -0.2360(6) 0.2152(5) 0.167(6) Uani 1 1 d . . .
O6WD O -0.1884(16) -0.1907(7) 0.3693(4) 0.183(6) Uani 1 1 d . . .
O7WD O 0.8618(18) 0.0625(7) 0.6081(6) 0.220(8) Uani 1 1 d . . .

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Mg2 0.095(5) 0.084(4) 0.046(3) 0.000 -0.024(3) 0.000
P1 0.0566(16) 0.0367(11) 0.0332(11) 0.0012(10) 0.0125(12) -0.0090(12)
P2 0.0447(13) 0.0437(12) 0.0242(9) 0.0013(9) 0.0044(10) -0.0041(13)
P3 0.0628(17) 0.0365(11) 0.0299(10) -0.0046(9) 0.0083(13) 0.0006(13)
O2 0.073(5) 0.049(4) 0.052(3) -0.001(3) 0.028(4) 0.003(4)

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O3 0.055 (4) 0.055 (4) 0.033 (3) -0.001 (3) 0.006 (3) -0.015 (3)
 O4 0.054 (4) 0.059 (4) 0.028 (3) 0.009 (3) 0.003 (3) -0.018 (4)
 O5 0.057 (4) 0.080 (5) 0.025 (3) 0.002 (3) 0.002 (3) 0.006 (4)
 O6 0.043 (4) 0.053 (3) 0.032 (3) 0.003 (3) 0.010 (3) -0.009 (4)
 O7 0.075 (5) 0.041 (3) 0.035 (3) -0.005 (3) 0.000 (4) 0.007 (4)
 O8 0.063 (5) 0.082 (5) 0.038 (3) -0.023 (3) 0.000 (4) 0.016 (4)
 O9 0.070 (5) 0.046 (3) 0.024 (3) -0.009 (2) 0.006 (3) 0.019 (4)
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 O2' 0.051 (5) 0.069 (5) 0.079 (5) 0.002 (4) 0.008 (4) -0.035 (4)
 O3' 0.146 (9) 0.036 (4) 0.054 (4) -0.013 (3) 0.014 (5) -0.020 (5)
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 O1WB 0.070 (10) 0.076 (9) 0.061 (7) 0.013 (6) -0.003 (7) -0.005 (8)
 O2WA 0.09 (2) 0.12 (2) 0.058 (12) -0.027 (12) 0.007 (13) 0.010 (16)
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 N3 0.047 (5) 0.038 (4) 0.036 (4) 0.005 (3) -0.002 (4) 0.000 (4)
 N6 0.048 (5) 0.053 (5) 0.027 (3) 0.005 (3) 0.002 (4) 0.003 (4)
 N7 0.050 (5) 0.034 (4) 0.031 (3) -0.001 (3) 0.015 (4) 0.001 (4)
 N9 0.058 (6) 0.036 (4) 0.027 (3) -0.003 (3) 0.001 (4) -0.009 (4)
 N1D 0.035 (6) 0.053 (6) 0.106 (9) -0.045 (6) 0.009 (6) -0.005 (5)
 N2D 0.033 (8) 0.043 (8) 0.021 (6) 0.009 (5) 0.009 (6) 0.007 (7)
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 C2 0.051 (6) 0.037 (5) 0.040 (5) 0.006 (4) -0.013 (5) -0.008 (5)
 C4 0.042 (6) 0.034 (4) 0.027 (4) -0.001 (3) 0.000 (4) -0.007 (4)
 C5 0.024 (4) 0.034 (4) 0.027 (4) -0.003 (3) 0.006 (4) 0.004 (4)
 C6 0.025 (5) 0.030 (4) 0.040 (4) -0.002 (4) 0.000 (4) -0.003 (4)
 C8 0.059 (7) 0.029 (4) 0.028 (4) 0.001 (3) 0.002 (4) 0.001 (5)
 C1' 0.050 (6) 0.030 (4) 0.035 (4) -0.007 (3) 0.009 (4) -0.004 (5)
 C2' 0.057 (6) 0.044 (5) 0.034 (4) 0.000 (4) -0.007 (5) -0.022 (5)
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 C1D 0.059 (7) 0.052 (6) 0.105 (8) -0.006 (5) -0.023 (7) 0.002 (6)
 C2D 0.054 (7) 0.062 (6) 0.058 (6) -0.006 (5) -0.015 (6) 0.008 (6)
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F2 > 2sigma(F2) is used only for calculating R-factors(gt) etc. and is
not relevant to the choice of reflections for refinement. R-factors based
on F2 are statistically about twice as large as those based on F, and R-
factors based on ALL data will be even larger.

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O2 O 0.2210(4) -0.01864(19) 0.34461(14) 0.0520(12) Uani 1 1 d . . .
O3 O 0.3761(4) -0.03486(18) 0.27893(11) 0.0442(11) Uani 1 1 d . . .
O4 O 0.4701(4) -0.02979(18) 0.35412(12) 0.0463(11) Uani 1 1 d . . .
O5 O 0.6733(4) 0.01825(19) 0.38422(12) 0.0506(12) Uani 1 1 d . . .
O6 O 0.6231(4) 0.02560(19) 0.30304(11) 0.0391(10) Uani 1 1 d . . .
O7 O 0.4828(4) 0.08091(17) 0.35746(12) 0.0424(10) Uani 1 1 d . . .
O8 O 0.2796(4) 0.14157(19) 0.34601(13) 0.0459(11) Uani 1 1 d . . .
H8P H 0.2396 0.1107 0.3511 0.069 Uiso 0.50 1 calc PR . .
O9 O 0.3892(4) 0.09521(16) 0.28143(11) 0.0344(10) Uani 1 1 d . . .
O10 O 0.5032(4) 0.17948(18) 0.32214(14) 0.0509(11) Uani 1 1 d . . .
O1' O 0.4071(4) -0.20609(16) 0.39206(12) 0.0386(10) Uani 1 1 d . . .
O2' O 0.0651(5) -0.2471(2) 0.39065(15) 0.0592(13) Uani 1 1 d . . .
H2'O H 0.0084 -0.2477 0.3716 0.089 Uiso 1 1 calc R . .
O3' O 0.2644(4) -0.30257(16) 0.34000(13) 0.0491(11) Uani 1 1 d . . .
H3'O H 0.1904 -0.3165 0.3357 0.074 Uiso 1 1 calc R . .
O5' O 0.3279(4) -0.11467(16) 0.33388(12) 0.0443(11) Uani 1 1 d . . .
O1WA O 0.0726(4) 0.0727(2) 0.31367(13) 0.0556(12) Uani 1 1 d . . .
O2WA O -0.1536(4) 0.1299(2) 0.26405(14) 0.0579(12) Uani 1 1 d . . .
O3WA O -0.1279(4) 0.0004(2) 0.27076(16) 0.0672(15) Uani 1 1 d . . .
N1 N 0.2833(5) -0.15132(19) 0.57217(15) 0.0368(12) Uani 1 1 d . . .
H1 H 0.2842 -0.1484 0.6000 0.044 Uiso 0.50 1 calc PR . .
N3 N 0.2867(5) -0.2176(2) 0.51154(16) 0.0403(13) Uani 1 1 d . . .
N6 N 0.2682(5) -0.0487(2) 0.56686(16) 0.0434(13) Uani 1 1 d . . .
H6A H 0.2715 -0.0461 0.5947 0.052 Uiso 1 1 calc R . .
H6B H 0.2617 -0.0172 0.5514 0.052 Uiso 1 1 calc R . .
N7 N 0.2520(5) -0.0701(2) 0.46895(15) 0.0389(12) Uani 1 1 d . . .
N9 N 0.2626(5) -0.16310(19) 0.44352(15) 0.0361(12) Uani 1 1 d . . .

```

N1D N 0.6033(6) 0.0605(3) 0.4799(3) 0.066(2) Uani 0.86 1 d P . .
H1D H 0.6025 0.0293 0.4638 0.080 Uiso 0.50 1 calc PR . .
N2D N 0.6124(10) -0.0021(5) 0.5320(3) 0.041(3) Uani 0.50 1 d P . .
H2DA H 0.6404 -0.0041 0.5583 0.049 Uiso 0.50 1 calc PR . .
N1D1 N 0.9351(7) 0.0440(4) 0.4647(4) 0.084(3) Uani 0.86 1 d P . .
H1D1 H 0.9316 0.0065 0.4601 0.100 Uiso 0.50 1 calc PR . .
N2D1 N 0.9340(11) 0.0163(8) 0.5366(4) 0.076(4) Uani 0.50 1 d P . .
H2DB H 0.9312 0.0290 0.5628 0.091 Uiso 0.50 1 calc PR . .
C2 C 0.2921(6) -0.2061(3) 0.5532(2) 0.0433(16) Uani 1 1 d . . .
H2 H 0.3030 -0.2383 0.5717 0.052 Uiso 1 1 calc R . .
C4 C 0.2735(6) -0.1669(2) 0.48773(19) 0.0337(14) Uani 1 1 d . . .
C5 C 0.2663(6) -0.1097(2) 0.50313(18) 0.0312(14) Uani 1 1 d . . .
C6 C 0.2731(6) -0.1017(3) 0.54777(19) 0.0338(14) Uani 1 1 d . . .
C8 C 0.2501(6) -0.1041(2) 0.43446(19) 0.0379(15) Uani 1 1 d . . .
H8 H 0.2411 -0.0895 0.4064 0.045 Uiso 1 1 calc R . .
C1' C 0.2802(6) -0.2118(2) 0.41186(19) 0.0396(16) Uani 1 1 d . . .
H1' H 0.2778 -0.2495 0.4276 0.048 Uiso 1 1 calc R . .
C2' C 0.1756(6) -0.2139(3) 0.37625(18) 0.0391(15) Uani 1 1 d . . .
H2' H 0.1471 -0.1735 0.3692 0.047 Uiso 1 1 calc R . .
C3' C 0.2578(7) -0.2396(2) 0.33786(19) 0.0408(16) Uani 1 1 d . . .
H3' H 0.2225 -0.2263 0.3099 0.049 Uiso 1 1 calc R . .
C4' C 0.3961(6) -0.2153(3) 0.34572(19) 0.0370(14) Uiso 1 1 d . . .
H4' H 0.4611 -0.2453 0.3370 0.044 Uiso 1 1 calc R . .
C5' C 0.4283(6) -0.1576(3) 0.3224(2) 0.0451(16) Uani 1 1 d . . .
H5'1 H 0.5154 -0.1434 0.3310 0.054 Uiso 1 1 calc R . .
H5'2 H 0.4287 -0.1639 0.2912 0.054 Uiso 1 1 calc R . .
C1D C 0.6021(7) 0.0539(3) 0.5254(3) 0.074(2) Uani 1.17 1 d P . .
C2D C 0.5993(7) 0.1042(3) 0.5498(3) 0.0576(19) Uani 1 1 d . . .
H2D H 0.5988 0.1010 0.5798 0.069 Uiso 1 1 calc R . .
C3D C 0.5972(7) 0.1588(3) 0.5315(2) 0.0483(17) Uani 1 1 d . . .
H3D H 0.5924 0.1927 0.5486 0.058 Uiso 1 1 calc R . .
C4D C 0.6023(6) 0.1632(3) 0.4869(3) 0.0559(19) Uani 1 1 d . . .
H4D H 0.6035 0.2005 0.4742 0.067 Uiso 1 1 calc R . .
C5D C 0.6055(7) 0.1145(3) 0.4610(3) 0.060(2) Uani 1 1 d . . .
H5D H 0.6091 0.1183 0.4310 0.072 Uiso 1 1 calc R . .
C1D1 C 0.9360(7) 0.0648(4) 0.5062(3) 0.084(2) Uani 1.17 1 d P . .
C2D1 C 0.9416(8) 0.1249(5) 0.5153(4) 0.094(3) Uani 1 1 d . . .
H2D1 H 0.9423 0.1397 0.5435 0.113 Uiso 1 1 calc R . .
C3D1 C 0.9460(8) 0.1601(5) 0.4799(5) 0.102(4) Uani 1 1 d . . .
H3D1 H 0.9501 0.2008 0.4845 0.122 Uiso 1 1 calc R . .
C4D1 C 0.9449(9) 0.1405(5) 0.4367(5) 0.102(4) Uani 1 1 d . . .
H4D1 H 0.9477 0.1670 0.4136 0.123 Uiso 1 1 calc R . .
C5D1 C 0.9398(7) 0.0823(5) 0.4302(4) 0.091(3) Uani 1 1 d . . .
H5D1 H 0.9395 0.0674 0.4020 0.109 Uiso 1 1 calc R . .
O1WD O 0.0000 0.2431(4) 0.7500 0.149(5) Uani 1 2 d S . .
O2WD O 0.9277(10) 0.0563(4) 0.6182(3) 0.164(4) Uani 1 1 d . . .
O3WD O 0.735(4) -0.2360(16) 0.2904(13) 0.162(13) Uiso 0.25 1 d P . .
O4WD O -0.252(5) -0.218(2) 0.3517(16) 0.193(17) Uiso 0.25 1 d P . .
O5WD O -0.167(3) -0.1773(13) 0.3725(10) 0.258(12) Uiso 0.50 1 d P . .
O6WD O 0.009(4) 0.1252(11) 0.7289(8) 0.276(14) Uiso 0.50 1 d P . .

loop_

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Mg2 0.0438(18) 0.063(2) 0.0343(17) 0.000 -0.0011(14) 0.000

P1 0.0560(11) 0.0307(8) 0.0304(9) 0.0053(7) 0.0028(8) -0.0039(7)
P2 0.0486(10) 0.0383(9) 0.0219(8) 0.0021(7) -0.0020(7) -0.0004(8)
P3 0.0457(10) 0.0320(8) 0.0230(8) -0.0024(7) -0.0023(7) -0.0019(7)
O2 0.056(3) 0.045(3) 0.055(3) 0.008(2) 0.009(2) 0.006(2)
O3 0.063(3) 0.044(3) 0.026(2) 0.0013(19) -0.0013(18) -0.011(2)
O4 0.065(3) 0.042(3) 0.032(2) 0.013(2) -0.0062(19) -0.011(2)
O5 0.064(3) 0.063(3) 0.025(2) 0.008(2) -0.010(2) 0.005(2)
O6 0.045(3) 0.050(2) 0.023(2) 0.002(2) 0.0017(16) 0.002(2)
O7 0.062(3) 0.042(2) 0.024(2) 0.0028(19) -0.003(2) 0.005(2)
O8 0.047(3) 0.056(3) 0.034(2) -0.006(2) 0.0010(19) 0.002(2)
O9 0.048(3) 0.038(2) 0.017(2) -0.0040(17) 0.0015(16) 0.0008(18)
O10 0.066(3) 0.045(2) 0.042(3) -0.001(2) -0.002(2) -0.016(2)
O1' 0.047(3) 0.039(2) 0.029(2) -0.0115(18) -0.0020(19) -0.0019(19)
O2' 0.057(3) 0.067(3) 0.054(3) -0.014(2) 0.009(2) -0.025(2)
O3' 0.070(3) 0.026(2) 0.051(3) -0.007(2) 0.005(2) -0.003(2)
O5' 0.065(3) 0.029(2) 0.039(3) 0.0045(18) 0.009(2) -0.007(2)
O1WA 0.054(3) 0.071(3) 0.041(3) 0.006(2) -0.002(2) -0.002(2)
O2WA 0.064(3) 0.066(3) 0.044(3) -0.002(2) -0.005(2) 0.001(2)
O3WA 0.052(3) 0.080(4) 0.070(4) 0.008(3) 0.009(2) 0.003(2)
N1 0.060(3) 0.028(3) 0.023(3) -0.002(2) -0.007(2) 0.002(2)
N3 0.069(4) 0.026(3) 0.026(3) -0.003(2) -0.008(3) 0.000(2)
N6 0.068(4) 0.034(3) 0.028(3) 0.001(2) -0.004(2) -0.002(3)
N7 0.059(3) 0.031(3) 0.027(3) -0.002(2) 0.004(2) 0.000(2)
N9 0.058(4) 0.027(3) 0.023(3) -0.007(2) -0.002(2) 0.000(2)
N1D 0.034(4) 0.059(5) 0.107(7) -0.047(5) -0.007(4) -0.001(3)
N2D 0.053(7) 0.048(7) 0.022(5) -0.007(5) -0.013(4) 0.007(5)
N1D1 0.043(5) 0.081(7) 0.127(9) 0.019(6) 0.001(5) 0.006(4)
N2D1 0.050(8) 0.114(12) 0.064(9) 0.024(9) 0.007(6) -0.003(8)
C2 0.069(5) 0.029(3) 0.032(4) 0.010(3) -0.010(3) 0.000(3)
C4 0.042(4) 0.028(3) 0.031(4) -0.005(3) 0.003(3) -0.005(3)
C5 0.042(4) 0.023(3) 0.029(3) 0.002(2) -0.004(3) -0.004(3)
C6 0.034(4) 0.033(3) 0.035(4) 0.003(3) 0.002(3) -0.001(3)
C8 0.068(5) 0.026(3) 0.020(3) -0.001(3) -0.002(3) 0.000(3)
C1' 0.063(5) 0.026(3) 0.030(4) -0.005(3) 0.002(3) -0.006(3)
C2' 0.057(4) 0.035(3) 0.025(3) -0.007(3) 0.000(3) 0.001(3)
C3' 0.071(5) 0.027(3) 0.024(3) 0.000(3) 0.002(3) -0.005(3)
C5' 0.044(4) 0.043(4) 0.049(4) -0.009(3) 0.016(4) -0.003(3)
C1D 0.059(5) 0.040(4) 0.123(7) -0.012(4) -0.010(4) 0.001(3)
C2D 0.055(5) 0.054(4) 0.064(5) 0.006(4) 0.001(4) 0.000(4)
C3D 0.046(4) 0.038(4) 0.061(5) -0.006(3) 0.009(4) -0.009(3)
C4D 0.042(4) 0.052(4) 0.074(5) -0.006(4) 0.010(4) -0.017(3)
C5D 0.056(5) 0.054(5) 0.071(6) -0.017(4) -0.005(4) -0.011(4)
C1D1 0.048(5) 0.112(8) 0.092(7) 0.014(6) 0.011(4) 0.011(4)
C2D1 0.048(6) 0.089(8) 0.145(10) 0.007(8) 0.010(6) 0.016(5)
C3D1 0.051(6) 0.072(7) 0.183(13) -0.015(9) -0.013(7) 0.024(5)
C4D1 0.077(7) 0.068(7) 0.162(12) 0.030(7) 0.008(7) 0.019(5)
C5D1 0.050(5) 0.104(8) 0.119(8) 0.042(7) 0.007(5) 0.011(5)
O1WD 0.305(16) 0.071(6) 0.071(6) 0.000 0.001(9) 0.000
O2WD 0.223(10) 0.135(7) 0.134(7) 0.014(6) 0.020(7) -0.002(6)

_geom_special_details

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All esds (except the esd in the dihedral angle between two l.s. planes) are estimated using the full covariance matrix. The cell esds are taken into account individually in the estimation of esds in distances, angles and torsion angles; correlations between esds in cell parameters are only used when they are defined by crystal symmetry. An approximate (isotropic) treatment of cell esds is used for estimating esds involving l.s. planes.

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Mg1 O6 2.054(3) . ?
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Mg1 O9 2.093(4) . ?
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Mg1 O3 2.112(4) . ?
Mg1 P2 3.1372(15) 3_655 ?
Mg1 P2 3.1372(15) . ?
Mg2 O1WA 2.096(4) . ?
Mg2 O1WA 2.096(4) 3 ?
Mg2 O2WA 2.101(5) 3 ?
Mg2 O2WA 2.101(5) . ?
Mg2 O3WA 2.127(5) . ?
Mg2 O3WA 2.127(5) 3 ?
P1 O3 1.477(4) . ?
P1 O2 1.492(4) . ?
P1 O5' 1.579(4) . ?
P1 O4 1.623(4) . ?
P2 O5 1.485(4) . ?
P2 O6 1.492(4) . ?
P2 O7 1.598(4) . ?
P2 O4 1.620(4) . ?
P3 O10 1.492(4) . ?
P3 O9 1.498(4) . ?
P3 O8 1.546(4) . ?
P3 O7 1.642(4) . ?
O1' C1' 1.422(7) . ?
O1' C4' 1.448(7) . ?
O2' C2' 1.411(7) . ?
O3' C3' 1.424(7) . ?
O5' C5' 1.444(7) . ?
N1 C6 1.353(7) . ?
N1 C2 1.371(7) . ?
N3 C2 1.311(7) . ?
N3 C4 1.366(7) . ?
N6 C6 1.333(7) . ?
N7 C8 1.312(7) . ?
N7 C5 1.389(7) . ?
N9 C8 1.365(7) . ?
N9 C4 1.370(7) . ?
N9 C1' 1.480(7) . ?
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N1D C1D 1.409(10) . ?
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N2D N1D 1.369(11) 4_556 ?
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N1D1 C5D1 1.371(11) . ?
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N2D1 C1D1 1.440(15) . ?
C4 C5 1.379(7) . ?
C5 C6 1.390(8) . ?
C1' C2' 1.522(8) . ?
C2' C3' 1.556(8) . ?
C3' C4' 1.517(9) . ?
C4' C5' 1.522(8) . ?
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C3D1 C4D1 1.405(14) . ?
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O6 Mg1 O3 87.15(16) . 3_655 ?
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O9 Mg1 O3 175.77(16) . 3_655 ?
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O6 Mg1 O3 89.49(16) . . ?
O9 Mg1 O3 175.77(16) 3_655 . ?
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O3 Mg1 O3 93.1(2) 3_655 . ?
O6 Mg1 P2 23.31(10) 3_655 3_655 ?
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O9 Mg1 P2 72.81(10) . . ?
O3 Mg1 P2 104.07(11) 3_655 . ?
O3 Mg1 P2 72.91(11) . . ?
P2 Mg1 P2 175.77(11) 3_655 . ?
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O1WA Mg2 O2WA 85.21(17) . 3 ?
O1WA Mg2 O2WA 92.53(17) 3 3 ?
O1WA Mg2 O2WA 92.53(17) . . ?
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O2WA Mg2 O2WA 99.7(3) 3 . ?
O1WA Mg2 O3WA 87.25(19) . . ?
O1WA Mg2 O3WA 95.33(19) 3 . ?
O2WA Mg2 O3WA 169.35(19) 3 . ?
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O2WA Mg2 O3WA 169.35(19) . 3 ?

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O3WA Mg2 O3WA 85.1(3) . . 3 ?
O3 P1 O2 120.9(3) . . ?
O3 P1 O5' 111.0(2) . . ?
O2 P1 O5' 105.3(2) . . ?
O3 P1 O4 107.8(2) . . ?
O2 P1 O4 109.0(2) . . ?
O5' P1 O4 101.0(2) . . ?
O5 P2 O6 118.5(2) . . ?
O5 P2 O7 109.7(2) . . ?
O6 P2 O7 109.5(2) . . ?
O5 P2 O4 106.8(2) . . ?
O6 P2 O4 108.9(2) . . ?
O7 P2 O4 102.2(2) . . ?
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O4 P2 Mg1 88.41(14) . . ?
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O10 P3 O8 112.0(2) . . ?
O9 P3 O8 110.8(2) . . ?
O10 P3 O7 104.8(2) . . ?
O9 P3 O7 108.3(2) . . ?
O8 P3 O7 102.5(2) . . ?
P1 O3 Mg1 131.4(2) . . ?
P2 O4 P1 129.2(2) . . ?
P2 O6 Mg1 123.7(2) . . ?
P2 O7 P3 130.4(2) . . ?
P3 O9 Mg1 131.0(2) . . ?
C1' O1' C4' 110.0(4) . . ?
C5' O5' P1 123.6(3) . . ?
C6 N1 C2 120.9(5) . . ?
C2 N3 C4 111.4(5) . . ?
C8 N7 C5 103.8(5) . . ?
C8 N9 C4 105.8(4) . . ?
C8 N9 C1' 126.8(5) . . ?
C4 N9 C1' 126.8(5) . . ?
C5D N1D C1D 121.6(6) . . ?
C1D N2D N1D 153.8(10) . 4_556 ?
C1D1 N1D1 C5D1 120.9(10) . . ?
N1D1 N2D1 C1D1 137.8(12) 4_556 . ?
N3 C2 N1 126.4(5) . . ?
N3 C4 N9 126.5(5) . . ?
N3 C4 C5 127.2(5) . . ?
N9 C4 C5 106.2(5) . . ?
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F2 > 2sigma(F2) is used only for calculating R-factors(gt) etc. and is
not relevant to the choice of reflections for refinement. R-factors based
on F2 are statistically about twice as large as those based on F, and R-
factors based on ALL data will be even larger.
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O4 O 0.9831(11) 0.4660(3) 0.85703(19) 0.102(3) Uani 1 1 d . . .
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O5' O 0.8361(13) 0.3817(4) 0.8457(3) 0.135(4) Uani 1 1 d . . .
O1WA O 0.551(4) 0.6126(16) 0.8196(11) 0.178(17) Uiso 0.43(3) 1 d P . .
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O2WA O 0.272(2) 0.660(2) 0.7663(6) 0.103(13) Uiso 0.51(10) 1 d P . .
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H1 H 0.7930 0.3571 1.0981 0.061 Uiso 0.50 1 calc PR . .
N3 N 0.7815(7) 0.2875(3) 1.0144(2) 0.0504(18) Uani 1 1 d . . .
N6 N 0.7753(7) 0.4544(3) 1.0660(2) 0.0481(17) Uani 1 1 d . . .
H6A H 0.7794 0.4573 1.0926 0.058 Uiso 1 1 calc R . .
H6B H 0.7695 0.4854 1.0511 0.058 Uiso 1 1 calc R . .
N7 N 0.7649(6) 0.4306(3) 0.9724(2) 0.0441(16) Uani 1 1 d . . .
N9 N 0.7692(7) 0.3389(3) 0.94898(19) 0.0439(16) Uani 1 1 d . . .
N1D N 1.1121(8) 0.5588(4) 0.9800(3) 0.061(3) Uani 0.86 1 d P . .
H1D H 1.1159 0.5274 0.9654 0.073 Uiso 0.50 1 calc PR . .
N2D N 1.1176(12) 0.4994(6) 1.0328(4) 0.044(3) Uani 0.50 1 d P . .
H2DA H 1.1331 0.4982 1.0590 0.053 Uiso 0.50 1 calc PR . .
N1D1 N 0.9436(15) 0.9536(10) 1.0338(8) 0.136(7) Uani 0.86 1 d PD . .
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N2D1 N 0.9428(16) 0.9794(14) 0.9673(9) 0.125(9) Uani 0.50 1 d PD . .
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C2 C 0.7874(11) 0.2994(4) 1.0540(3) 0.066(3) Uani 1 1 d . . .
H2 H 0.7921 0.2677 1.0720 0.079 Uiso 1 1 calc R . .
C4 C 0.7755(8) 0.3359(3) 0.9910(2) 0.0435(19) Uani 1 1 d . . .
C5 C 0.7722(8) 0.3929(3) 1.0056(2) 0.0421(18) Uani 1 1 d . . .
C6 C 0.7780(7) 0.4021(3) 1.0481(2) 0.0373(18) Uani 1 1 d . . .
C8 C 0.7633(8) 0.3963(3) 0.9402(3) 0.045(2) Uani 1 1 d . . .
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C1' C 0.7783(12) 0.2908(4) 0.9209(3) 0.062(3) Uani 1 1 d . . .
H1' H 0.7719 0.2543 0.9366 0.075 Uiso 1 1 calc R . .
C2' C 0.6720(13) 0.2908(4) 0.8875(3) 0.078(3) Uani 1 1 d . . .
H2'1 H 0.6483 0.3311 0.8802 0.093 Uiso 1 1 calc R . .
C3' C 0.751(2) 0.2615(5) 0.8510(3) 0.131(7) Uani 1 1 d . . .
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C4' C 0.895(2) 0.2822(6) 0.8572(4) 0.121(6) Uani 1 1 d . . .
H4' H 0.9561 0.2509 0.8492 0.145 Uiso 1 1 calc R . .
C5' C 0.934(2) 0.3383(6) 0.8347(4) 0.145(8) Uani 1 1 d . . .
H5'1 H 1.0223 0.3507 0.8432 0.174 Uiso 1 1 calc R . .
H5'2 H 0.9339 0.3320 0.8050 0.174 Uiso 1 1 calc R . .
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C2D C 1.1018(8) 0.6040(3) 1.0451(3) 0.052(2) Uani 1 1 d . . .
H2D H 1.0972 0.6020 1.0739 0.062 Uiso 1 1 calc R . .
C3D C 1.1000(9) 0.6572(4) 1.0264(3) 0.056(2) Uani 1 1 d . . .
H3D H 1.0970 0.6909 1.0424 0.067 Uiso 1 1 calc R . .
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C5D1 C 0.9472(15) 0.9166(9) 1.0661(8) 0.140(7) Uani 1 1 d D . .
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O4WD O 0.811(3) 0.2730(12) 0.7380(10) 0.187(11) Uiso 0.50 1 d P . .
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C4' 0.221(18) 0.077(8) 0.065(7) -0.013(6) 0.039(10) -0.040(10)
C5' 0.26(2) 0.095(9) 0.079(8) -0.049(7) 0.087(11) -0.073(12)
C1D 0.043(6) 0.047(5) 0.133(9) 0.015(5) -0.002(5) -0.011(4)
C2D 0.039(5) 0.047(5) 0.069(6) 0.004(4) -0.013(4) -0.013(4)
C3D 0.046(6) 0.050(5) 0.073(6) 0.008(4) 0.003(5) -0.015(4)
C4D 0.047(6) 0.062(6) 0.060(6) 0.017(5) 0.009(5) -0.004(5)
C5D 0.035(5) 0.067(6) 0.066(6) 0.003(5) 0.008(4) 0.000(4)
C1D1 0.032(6) 0.101(11) 0.24(2) -0.047(13) 0.005(10) 0.003(6)
C2D1 0.033(7) 0.174(17) 0.156(15) -0.029(14) -0.013(8) -0.007(9)
C3D1 0.043(8) 0.105(11) 0.20(2) -0.044(13) -0.009(10) 0.001(7)
C4D1 0.040(8) 0.134(14) 0.22(2) 0.003(14) 0.001(10) -0.011(8)
C5D1 0.068(10) 0.155(18) 0.20(2) -0.066(16) 0.008(12) 0.004(11)
O1WD 0.36(7) 0.042(6) 0.070(8) 0.011(16) 0.04(4) 0.072(19)
O2WD 0.135(16) 0.093(12) 0.118(14) 0.000(11) -0.021(13) 0.011(11)
O3WD 0.28(3) 0.079(10) 0.084(11) -0.004(9) -0.027(15) 0.051(15)

_geom_special_details

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All esds (except the esd in the dihedral angle between two l.s. planes) are estimated using the full covariance matrix. The cell esds are taken into account individually in the estimation of esds in distances, angles and torsion angles; correlations between esds in cell parameters are only used when they are defined by crystal symmetry. An approximate (isotropic) treatment of cell esds is used for estimating esds involving l.s. planes.

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Ca1 O9 2.262(8) . ?
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Ca1 O3 2.298(8) 3_756 ?
Ca1 O6 2.347(7) . ?
Ca1 O6 2.347(7) 3_756 ?
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Ca1 P2 3.403(3) . ?
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Ca1 P1 3.442(3) 3_756 ?
Ca1 P3 3.483(3) . ?
Ca1 P3 3.483(3) 3_756 ?
Ca2 O2WB 2.29(4) 3_656 ?
Ca2 O2WB 2.29(4) . ?
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Ca2 O1WA 2.30(4) 3_656 ?
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Ca2 O3WA 2.38(3) 3_656 ?
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Ca2 O1WB 2.418(14) . ?
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Ca2 O3WB 2.56(5) 3_656 ?
Ca2 O2WA 2.60(3) 3_656 ?
Ca2 O2WA 2.60(3) . ?
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P1 O3 1.485(8) . ?
P1 O4 1.569(11) . ?
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P2 O6 1.486(7) . ?
P2 O7 1.556(7) . ?
P2 O4 1.591(8) . ?
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P3 O8 1.497(10) . ?
P3 O9 1.499(7) . ?
P3 O7 1.651(6) . ?
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O1' C1' 1.449(13) . ?
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O3' C3' 1.427(14) . ?
O5' C5' 1.44(2) . ?
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N9 C4 1.358(10) . ?
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C5 C6 1.390(11) . ?
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C2' C3' 1.57(2) . ?
C3' C4' 1.53(2) . ?
C4' C5' 1.525(17) . ?
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C2D C3D 1.360(12) . ?
C3D C4D 1.368(12) . ?
C4D C5D 1.383(13) . ?
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C2D1 C3D1 1.375(15) . ?
C3D1 C4D1 1.437(16) . ?
C4D1 C5D1 1.418(16) . ?
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O2WD O6WD 1.10(2) . ?
O5WD O7WD 1.60(5) . ?

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O9 Ca1 O3 85.4(3) . . ?
O9 Ca1 O3 85.4(3) 3_756 3_756 ?
O9 Ca1 O3 175.8(4) . 3_756 ?
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O9 Ca1 O6 100.2(3) 3_756 . ?
O9 Ca1 O6 80.3(3) . . ?
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O3 Ca1 O6 95.9(3) 3_756 . ?
O9 Ca1 O6 80.3(3) 3_756 3_756 ?
O9 Ca1 O6 100.2(3) . 3_756 ?
O3 Ca1 O6 95.9(3) . 3_756 ?
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O9 Ca1 P2 115.06(19) . 3_756 ?
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O6 Ca1 P2 158.6(2) . 3_756 ?
O6 Ca1 P2 21.3(2) 3_756 3_756 ?
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O3 Ca1 P2 68.1(2) . . ?
O3 Ca1 P2 111.2(2) 3_756 . ?
O6 Ca1 P2 21.3(2) . . ?
O6 Ca1 P2 158.6(2) 3_756 . ?
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O9 Ca1 P1 72.6(2) . . ?
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O3 Ca1 P1 107.7(3) 3_756 . ?
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O6 Ca1 P1 112.0(2) 3_756 . ?

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P2 Ca1 P1 49.89(10) . . ?
O9 Ca1 P1 72.6(2) $\bar{3}$ $\bar{7}$ 56 $\bar{3}$ $\bar{7}$ 56 ?
O9 Ca1 P1 162.48(19) . $\bar{3}$ $\bar{7}$ 56 ?
O3 Ca1 P1 107.7(3) . $\bar{3}$ $\bar{7}$ 56 ?
O3 Ca1 P1 19.38(19) $\bar{3}$ $\bar{7}$ 56 $\bar{3}$ $\bar{7}$ 56 ?
O6 Ca1 P1 112.0(2) . $\bar{3}$ $\bar{7}$ 56 ?
O6 Ca1 P1 67.6(2) $\bar{3}$ $\bar{7}$ 56 $\bar{3}$ $\bar{7}$ 56 ?
P2 Ca1 P1 49.89(10) $\bar{3}$ $\bar{7}$ 56 $\bar{3}$ $\bar{7}$ 56 ?
P2 Ca1 P1 129.54(10) . $\bar{3}$ $\bar{7}$ 56 ?
P1 Ca1 P1 122.95(16) . $\bar{3}$ $\bar{7}$ 56 ?
O9 Ca1 P3 92.5(2) $\bar{3}$ $\bar{7}$ 56 . ?
O9 Ca1 P3 17.8(2) . . ?
O3 Ca1 P3 87.6(2) . . ?
O3 Ca1 P3 158.1(3) $\bar{3}$ $\bar{7}$ 56 . ?
O6 Ca1 P3 62.93(18) . . ?
O6 Ca1 P3 117.57(19) $\bar{3}$ $\bar{7}$ 56 . ?
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P1 Ca1 P3 70.93(8) . . ?
P1 Ca1 P3 163.62(14) $\bar{3}$ $\bar{7}$ 56 . ?
O9 Ca1 P3 17.8(2) $\bar{3}$ $\bar{7}$ 56 $\bar{3}$ $\bar{7}$ 56 ?
O9 Ca1 P3 92.5(2) . $\bar{3}$ $\bar{7}$ 56 ?
O3 Ca1 P3 158.1(3) . $\bar{3}$ $\bar{7}$ 56 ?
O3 Ca1 P3 87.6(2) $\bar{3}$ $\bar{7}$ 56 $\bar{3}$ $\bar{7}$ 56 ?
O6 Ca1 P3 117.57(19) . $\bar{3}$ $\bar{7}$ 56 ?
O6 Ca1 P3 62.93(18) $\bar{3}$ $\bar{7}$ 56 $\bar{3}$ $\bar{7}$ 56 ?
P2 Ca1 P3 50.38(7) $\bar{3}$ $\bar{7}$ 56 $\bar{3}$ $\bar{7}$ 56 ?
P2 Ca1 P3 130.41(10) . $\bar{3}$ $\bar{7}$ 56 ?
P1 Ca1 P3 163.62(13) . $\bar{3}$ $\bar{7}$ 56 ?
P1 Ca1 P3 70.93(8) $\bar{3}$ $\bar{7}$ 56 $\bar{3}$ $\bar{7}$ 56 ?
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O2WB Ca2 O2WB 156(4) $\bar{3}$ $\bar{6}$ 56 . ?
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O2WB Ca2 O1WA 88.3(11) $\bar{3}$ $\bar{6}$ 56 $\bar{3}$ $\bar{6}$ 56 ?
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O1WA Ca2 O1WA 177.7(19) . $\bar{3}$ $\bar{6}$ 56 ?
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O2WB Ca2 O3WA 66.8(19) . . ?
O1WA Ca2 O3WA 82.6(15) . . ?
O1WA Ca2 O3WA 99.3(16) $\bar{3}$ $\bar{6}$ 56 . ?
O2WB Ca2 O3WA 66.8(19) $\bar{3}$ $\bar{6}$ 56 $\bar{3}$ $\bar{6}$ 56 ?
O2WB Ca2 O3WA 137.2(19) . $\bar{3}$ $\bar{6}$ 56 ?
O1WA Ca2 O3WA 99.3(16) . $\bar{3}$ $\bar{6}$ 56 ?
O1WA Ca2 O3WA 82.6(15) $\bar{3}$ $\bar{6}$ 56 $\bar{3}$ $\bar{6}$ 56 ?
O3WA Ca2 O3WA 72.5(13) . $\bar{3}$ $\bar{6}$ 56 ?
O2WB Ca2 O1WB 110.1(10) $\bar{3}$ $\bar{6}$ 56 $\bar{3}$ $\bar{6}$ 56 ?
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O3WA Ca2 O1WB 67.6(13) . $\bar{3}$ $\bar{6}$ 56 ?
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O2WB Ca2 O1WB 110.1(10) . . ?
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O3WA Ca2 O3WB 19.8(11) . . ?
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O1WB Ca2 O3WB 86.7(17) 3_656 . ?
O1WB Ca2 O3WB 53.0(16) . . ?
O2WB Ca2 O3WB 73.7(19) 3_656 3_656 ?
O2WB Ca2 O3WB 127(2) . 3_656 ?
O1WA Ca2 O3WB 118.5(19) . 3_656 ?
O1WA Ca2 O3WB 63.6(18) 3_656 3_656 ?
O3WA Ca2 O3WB 72.5(11) . 3_656 ?
O3WA Ca2 O3WB 19.8(11) 3_656 3_656 ?
O1WB Ca2 O3WB 53.0(16) 3_656 3_656 ?
O1WB Ca2 O3WB 86.7(16) . 3_656 ?
O3WB Ca2 O3WB 79(2) . 3_656 ?
O2WB Ca2 O2WA 13.6(11) 3_656 3_656 ?
O2WB Ca2 O2WA 142(3) . 3_656 ?
O1WA Ca2 O2WA 89.8(10) . 3_656 ?
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O3WA Ca2 O2WA 150.0(13) . 3_656 ?
O3WA Ca2 O2WA 80.3(12) 3_656 3_656 ?
O1WB Ca2 O2WA 115.8(6) 3_656 3_656 ?
O1WB Ca2 O2WA 86.4(6) . 3_656 ?
O3WB Ca2 O2WA 137.2(16) . 3_656 ?
O3WB Ca2 O2WA 86.2(14) 3_656 3_656 ?
O2WB Ca2 O2WA 142(3) 3_656 . ?
O2WB Ca2 O2WA 13.6(11) . . ?
O1WA Ca2 O2WA 89.2(11) . . ?
O1WA Ca2 O2WA 89.8(10) 3_656 . ?
O3WA Ca2 O2WA 80.3(12) . . ?
O3WA Ca2 O2WA 150.0(13) 3_656 . ?
O1WB Ca2 O2WA 86.4(6) 3_656 . ?
O1WB Ca2 O2WA 115.8(6) . . ?
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O2WA Ca2 O2WA 128.7(19) 3_656 . ?
O2 P1 O3 117.8(8) . . ?
O2 P1 O4 107.7(5) . . ?
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O2 P1 O5' 106.6(6) . . ?
O3 P1 O5' 110.8(5) . . ?
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 P2 O7 P3 132.2(4) . . ?
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 C6 N1 C2 121.2(7) . . ?
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 C8 N7 C5 104.0(6) . . ?
 C8 N9 C4 105.2(6) . . ?
 C8 N9 C1' 128.4(6) . . ?
 C4 N9 C1' 126.2(6) . . ?
 C5D N1D C1D 121.2(8) . . ?
 C1D N2D N1D 148.8(12) . 4_567 ?
 C1D1 N1D1 C5D1 125(2) . . ?
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 N3 C2 N1 126.4(8) . . ?
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C3D1 C2D1 C1D1 118.0(17) . . ?
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