A novel heterotrifunctional peptide-based cross-linking reagent for facile access to bioconjugates. Applications to peptide fluorescent labelling and immobilisation

Guillaume Clavé, Hervé Boutal, Antoine Hoang, François Perraut, Hervé Volland, Pierre-Yves Renard and Anthony Romieu

Org. Biomol. Chem., 2008, **6**, 3065–3078 (DOI: 10.1039/b807263a)

The authors thank Dr Oleg Melnyk (Institut de Biologie de Lille, UMR CNRS 8161, Universités de Lille 1 et 2, Institut Pasteur de Lille, IFR 142) for informing them that *N*-hydroxysuccinimide carbonates and carbamates have already been used as bioconjugate reagents, contrary to what is claimed in our manuscript (p. 3067).

Synthesis of biotinamidohexanol *N*-hydroxysuccinimide carbonate (Bx-*O*-NHS), biotinamidohexylamine *N*-hydroxysuccinimide carbamate (Bx-*NH*-NHS), 1-(2,4-dinitrophenyl)amidohexanol *N*-hydroxysuccinimide carbonate (DNP-*O*-NHS), 1-(2,4-dinitrophenyl)amidohexylamine *N*-hydroxysuccinimide carbamate (DNP-*NH*-NHS) and their application to protein modification have been published by Morpurgo *et al.* Thus, this latter publication should be taken into account in reference 13 (p. 3067) as follows: M. Morpurgo, E. A. Bayer and M. Wilchek, *J. Biochem. Biophys. Methods*, 1999, **38**, 17.

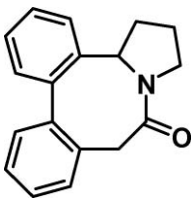
The authors regret this unwitting omission.

A facile synthesis of pyrrolo-(di)-benzazocinones *via* an intramolecular *N*-acyliminium ion cyclisation

Frank D. King, Abil E. Aliev, Stephen Caddick, Derek A. Tocher and Denis Courtier-Murias

Org. Biomol. Chem., 2009, **7**, 167–177 (DOI: 10.1039/b815195d)

In Scheme 1, the structure of **3** should be:



Synthesis of the originally proposed structures of elatenyne and an enyne from *Laurencia majuscula*

Helen M. Sheldrake, Craig Jamieson, Sofia I. Pascu and Jonathan W. Burton

Org. Biomol. Chem., 2009, **7**, 238–252 (DOI: 10.1039/b814953d)

The X-ray structure of the sulfone **38** was inadvertently shown with the incorrect absolute configuration in Fig. 9 in the original manuscript. The corrected Fig. 9 is shown below, along with corrected note 59. Additionally, the original CIF file for the structure of the sulfone **38** contained an error. The corrected CIF file has since been deposited at the CCDC (Deposit-698760-corrected).†

59. Crystal structure determination: Crystallographic data of sulfone **38** was collected on the synchrotron radiation source at Station 9.8, Daresbury SRS, UK, on a Bruker SMART CCD diffractometer. The structures were solved by direct methods using the program SIR92 (ref. 65). The refinement (on *F*) and graphical calculations were performed using the CRYSTALS (ref. 66) program suite. Crystal data: $C_{15}H_{20}O_5S$, $M = 312.39$, $Z = 4$, monoclinic, space group $P2_1$, $a = 5.5615(17)$ Å, $b = 27.699(8)$ Å, $c = 10.094(3)$ Å, $\beta = 105.644(6)°$, $V = 1497.4(8)$ Å^3, $T = 150$ K, $\mu = 0.235$ mm^{-1}. Of 10048 reflections measured, 6771 were independent ($R_{int} = 0.028$). Final $R = 0.0528$ (5013 reflections with $I > 2\sigma(I)$) and w$R = 0.1102$. Crystallographic data (excluding structure factors) for this structure have been deposited with the Cambridge Crystallographic Data Centre as supplementary publication no. CCDC 698760-corrected. Copies of the data can be obtained free of charge from the CCDC *via* www.ccdc.cam.ac.uk/data_request/cif.

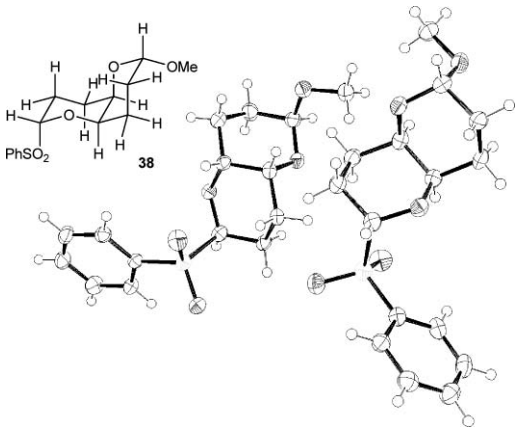


Fig. 9 X-Ray crystal structure of the anomeric sulfone **38** showing two molecules in the unit cell (50% probability ellipsoids).

†We are grateful to Dr Amber Thompson (University of Oxford) and Dr David Watkin (University of Oxford) for assistance in correcting this error.

Synthesis and use of isotope-labelled substrates for a mechanistic study on human α-methylacyl-CoA racemase 1A (AMACR; P504S)

Daniel J. Darley, Danica S. Butler, Samuel J. Prideaux, Thomas W. Thornton, Abigail D. Wilson, Timothy J. Woodman, Michael D. Threadgill and Matthew D. Lloyd

Org. Biomol. Chem., 2009, **7**, 543–552 (DOI: 10.1039/b815396e)

The authors regret the following error:

During the course of subsequent studies it has come to our attention that the enzyme kinetic parameters for substrates **10*S*** and **10*R*** were incorrectly reported. The correct parameters are as follows: $K_m = 1.2$ mM; $V_{max} = 77.5$ nmol min^{-1} mg^{-1}; $k_{cat} = 6.09 \times 10^{-2}$ s^{-1}; $k_{cat}/K_m = 50.75$ s^{-1} M^{-1}. For **10*R***: $K_m = 1.2$ mM; $V_{max} = 68.4$ nmol min^{-1} mg^{-1}; $k_{cat} = 5.38 \times 10^{-2}$ s^{-1}; $k_{cat}/K_m = 44.80$ s^{-1} M^{-1}.

This error is at the bottom of p. 545 and the top of p. 546.

Metal-catalysed halogen exchange reactions of aryl halides

Tom D. Sheppard

Org. Biomol. Chem., 2009, **7**, 1043–1052 (DOI: 10.1039/b818155a)

The author regrets the following errors:

Reference 31 should read:

31 G. van Koten, J. T. B. H. Jastrzebski and J. G. Noltes, *Tetrahedron Lett.*, 1976, **17**, 223–226.

Reference 40 should read:

40 K. J. O'Connor and C. J. Burrows, *J. Org. Chem.*, 1991, **56**, 1344–1346; J. T. Arnold, T. O. Bayraktaroglu, R. G. Brown, C. R. Heiermann, W. W. Magnus, A. B. Ohman and R. G. Landolt, *J. Org. Chem.*, 1992, **57**, 391–393.

Reference 60 should read:

60 T. Furua and T. Ritter, *J. Am. Chem. Soc.*, 2008, **130**, 10060–10061; T. Furua, H. M. Kaiser and T. Ritter, *Angew. Chem., Int. Ed.*, 2008, **47**, 5993–5996; D. G. Hall, ed., Boronic Acids, Wiley-VCH, Weinheim, 2005.

Silver-catalysed Doyle–Kirmse reaction of allyl and propargyl sulfides

Paul W. Davies, Sébastien J.-C. Albrecht and Giulio Assanelli

Org. Biomol. Chem., 2009, **7**, 1276–1279 (DOI: 10.1039/b822584b)

The following report should be included in the introductory discussion of recent progress in silver-catalysed atom-transfer reactions:

A silver(I) tris(pyrazolyl)borate complex has been used with alkyldiazoacetates to effectively catalyse the formation of halonium ylides which then undergo sigmatropic rearrangement.

P. Krishnamoorthy, R. G. Browning, S. Singh, R. Sivappa, C. J. Lovely and H. V. R. Dias, *Chem. Commun.*, 2007, 731.

We thank Professor Carl Lovely for alerting us to this omission.

Hydrogen bond driven self-assembled C_2-symmetric chlorin *syn* dimers; unorthodox models for chlorophyll 'special pairs' in photosynthetic reaction centres

Taru Nikkonen, Raisa Haavikko and Juho Helaja

Org. Biomol. Chem., 2009, **7**, 2046–2052 (DOI: 10.1039/b819764d)

On page 2046, the authors made the following statement: 'Katz and collaborators have perhaps most elegantly constructed a glycol linked chlorophyllide dimer,[5a] which self-assembles into a folded conformer by two hydrate bridges *via* oxygen metal coordination and carbonyl hydrogen bonding.'

The authors would like to further clarify that prior to this chlorophyllide dimer, the covalent linkage self-assembling chlorin dimer concept was originally introduced by S. G. Boxer and G. L. Closs with ethylene glycol linked *pyro*chlorophyllide *a* dimer, which is a similar chlorophyll derivate, apart from the fact that the compound lacks $13^2(R)$ methoxycarbonyl groups.[5b]

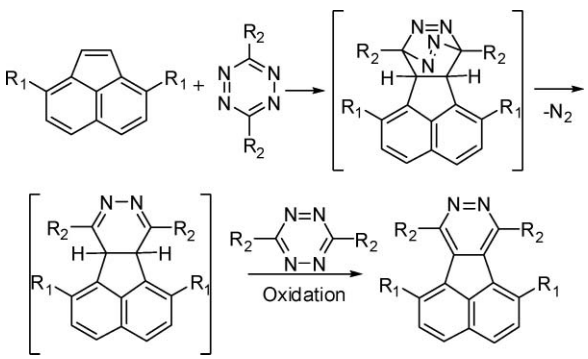
Diels–Alder reactions of 3,6-disubstituted 1,2,4,5-tetrazines. Synthesis and X-ray crystal structures of diazafluoranthene derivatives

Nelli Rahanyan, Anthony Linden, Kim K. Baldridge and Jay S. Siegel

Org. Biomol. Chem., 2009, **7**, 2082–2092 (DOI: 10.1039/b820551e)

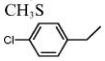
The authors regret the following errors:

In Scheme 2 the structure of the intermediate (bottom left) is incorrect. A corrected scheme is shown below.



In Table 1, the entry for compound **12b** should be deleted as **12b** was not prepared; conditions for preparation of **12a′** were mistakenly added as entry **12b**. A corrected table is shown below.

Table 1 Diazafluoranthene derivatives

R_2	Entry (R_1 = H)	Conditions	Time	Yield %	Entry (R_1 = Me)	Conditions	Time	Yield %
Ph	**4a**	CH_2Cl_2, reflux	5 d	58%	**4b**	*p*-xylene, autoclave, 180 °C	3 d	27%
	**5a**	chlorobenzene, reflux	2 d	75%	**5b**	*p*-xylene, autoclave, 180 °C	2 d	60%
	**6a**	mesitylene, reflux	1 d	50%	**6b**	*p*-xylene, autoclave, 180 °C	2 d	38%
	**7a**	CH_2Cl_2, reflux	3 d	78%	**7b**	mesitylene, reflux	1 d	85%
	**8a**	DCE, reflux	4 d	39%	**8b**	*p*-xylene, autoclave, 180 °C	3 d	59%
	**9a**	chlorobenzene, reflux	2 d	73%	**9b**	chlorobenzene, reflux	1.5 d	47%
	**10a**	chlorobenzene, reflux	12 h	60–70%				
CO_2Me	**11a**	*p*-xylene, autoclave, 180 °C	12 h	80–95%	**11b**	CH_2Cl_2, reflux	1 d	70%
$CONH_2$	**12a**[a,b]	DMSO, 100 °C	12 h	50%				
CH_3	**13a**	*p*-xylene, autoclave, 180 °C	2 d	70–80%	**13b**	*p*-xylene, autoclave, 180 °C	3 d	70%
CH_3S	**14a**	*p*-xylene, reflux	1 d	75%	**14b**	mesitylene, reflux	2 d	20%
	**15a**	*p*-xylene, autoclave, 180 °C	2.5 d	30–50%				

[a] Compound **12a** was obtained as a mixture with 1,4-dihydro-1,2,4,5-tetrazine-3,6-dicarboxamide. The yield of **12a** was determined from the integral intensity ratio in the ^{1}H-NMR spectrum. [b] A cognate of **12a**, **12a′**, was prepared using 4,7-di-*tert*-butylacenaphthylene as a dienophile. Conditions: DMSO, 120 °C, 1 h, 95%.

Throughout the experimental, 2,5-di-*tert*-butylacenaphtho[1,2-*d*]pyridazine-7,10-dicarboxamide was referred to as **12b** when it should have been referred to as **12a′**.

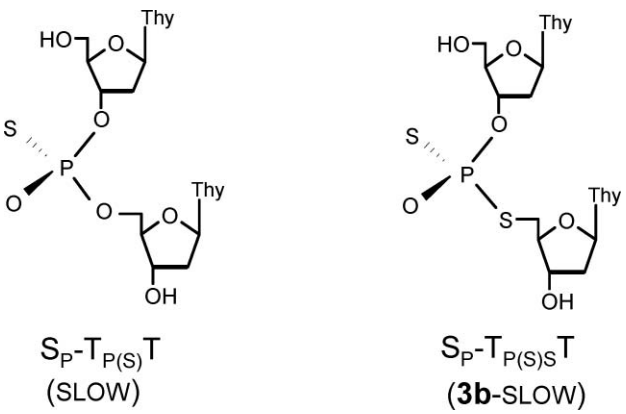
The synthesis of di- and oligo-nucleotides containing a phosphorodithioate internucleotide linkage with one of the sulfur atoms in a 5′-bridging position

Magdalena Olesiak, Wojciech J. Stec and Andrzej Okruszek

Org. Biomol. Chem., 2009, **7**, 2162–2169 (DOI: 10.1039/b901791g)

The authors regret the following error:

On page 2165, in a drawing that is part of Fig. 2 illustrating the spatial arrangement of substituents around chiral phosphorus atoms in compounds S_P-$T_{P(S)}T$ (SLOW) and S_P-$T_{P(S)S}T$ (**3b**-SLOW), the positions of the non-bridging oxygen and sulfur atoms were erroneously drawn. The corrected version of the drawing is shown below.



S_P-$T_{P(S)}T$ (SLOW)

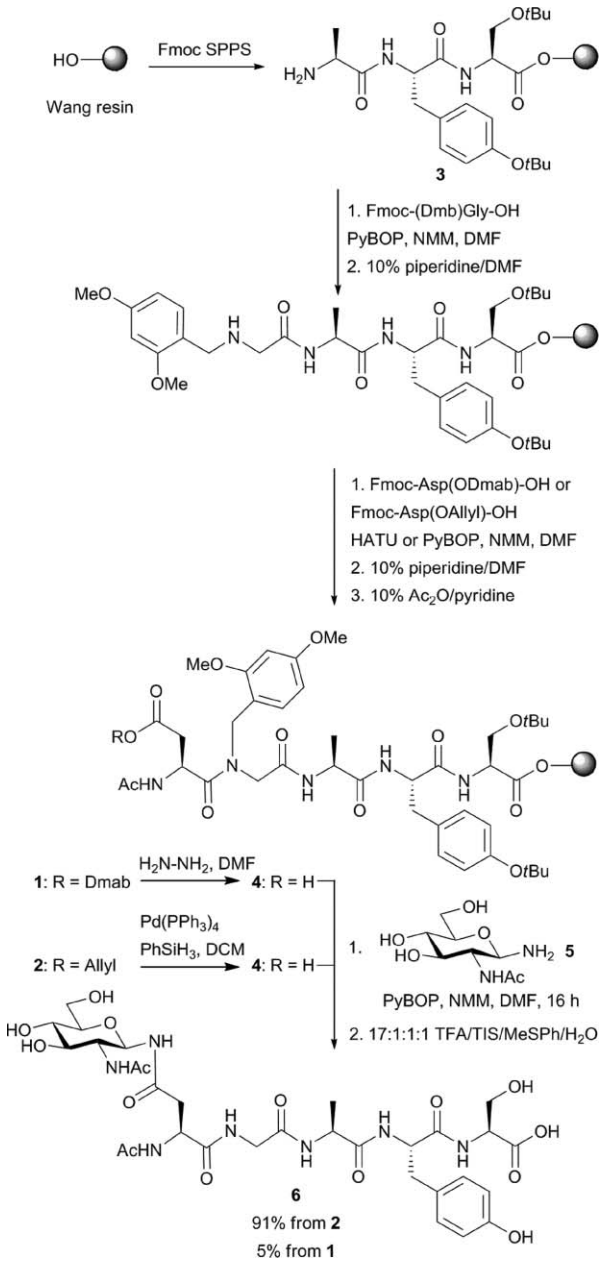
S_P-$T_{P(S)S}T$ (**3b**-SLOW)

Efficient use of the Dmab protecting group: applications for the solid-phase synthesis of *N*-linked glycopeptides

Trent Conroy, Katrina A. Joliffe and Richard J. Payne

Org. Biomol. Chem., 2009, **7**, 2255–2258 (DOI: 10.1039/b821051a)

The authors regret the following error: In Scheme 2 the final product should not contain *t*-Bu protecting groups. A corrected Scheme is shown below.



The *in vitro* transport of model thiodipeptide prodrugs designed to target the intestinal oligopeptide transporter, PepT1

David Foley, Myrtani Pieri, Rachel Pettecrew, Richard Price, Steven Miles, Ho Kam Lam, Patrick Bailey and David Meredith

Org. Biomol. Chem., 2009, **7**, 3652–3656 (DOI: 10.1039/b909221h)

The authors regret the following error:

One of the authors' names was spelt incorrectly. The correct spelling is Steven Miles not Stephen Miles.

Fluorogenic affinity label for the facile, rapid imaging of proteins in live cells

Rex W. Watkins, Luke D. Lavis, Vanessa M. Kung, Georgyi V. Los and Ronald T. Raines

Org. Biomol. Chem., 2009, **7**, 3969–3975 (DOI: 10.1039/b907664f)

The authors regret the following error:

Fig. 4 caption should read:

Fig. 4 Effect of dielectric constant on the lactone–quinoid equilibrium of **12**, **13**, and unmasked **1**. Absorption spectra of (A) **12** (12.5 μM), (B) **13** (12.5 μM), and (C) unmasked **1** (50 μM) in mixtures of dioxane and water. (D) Absorption at λ_{max} in the spectra in panels A–C. Values of ε are from ref. 28.

Parts (A), (B) and (C) were assigned incorrectly.

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

Additions and corrections can be viewed online by accessing the original article to which they apply.
