

List of publications

1. Original Research Articles

- (1) Youssef, A., von Koschembahr, A., Caillat, S., Corre, S., Galibert, M. D. and Douki, T. (2018) 6-Formylindolo[3,2-b]carbazole (FICZ) is a Very Minor Photoproduct of Tryptophan at Biologically Relevant Doses of UVB and Simulated Sunlight. *Photochem. Photobiol. in press.*
- (2) Young, A. R., Greenaway, J., Harrison, G. I., Lawrence, K. P., Sarkany, R., Douki, T., Boyer, F., Josse, G., Questel, E., Monteil, C. and Rossi, A. B. (2018) Sub-optimal Application of a High SPF Sunscreen Prevents Epidermal DNA Damage in Vivo. *Acta Derm. Venereol. in press.*
- (3) von Koschembahr, A., Youssef, A., Béal, D., Calissi, C., Bourgart, E., Marques, M., Leccia, M.-T., Giot, J.-P., Maitre, A. and Douki, T. (2018) Solar simulated light exposure alters metabolization and genotoxicity induced by benzo[a]pyrene in human skin. *Sci. Rep. in Press.*
- (4) Pollet, M., Shaik, S., Mescher, M., Frauenstein, K., Tigges, J., Braun, S. A., Sondenheimer, K., Kaveh, M., Bruhs, A., Meller, S., Homey, B., Schwarz, A., Esser, C., Douki, T., Vogel, C. F. A., Krutmann, J. and Haarmann-Stemann, T. (2018) The AHR represses nucleotide excision repair and apoptosis and contributes to UV-induced skin carcinogenesis. *Cell Death Differ. in press.*
- (5) Nicholson, W. L., Schuerger, A. C. and Douki, T. (2018) The Photochemistry of Unprotected DNA and DNA inside *Bacillus subtilis* Spores Exposed to Simulated Martian Surface Conditions of Atmospheric Composition, Temperature, Pressure, and Solar Radiation. *Astrobiology in press.*
- (6) Lawrence, K. P., Douki, T., Sarkany, R. P. E., Acker, S., Herzog, B. and Young, A. R. (2018) The UV/visible radiation boundary region (385 – 405 nm) damages skin cells and induces “dark” cyclobutane pyrimidine dimers in human skin *in vivo*. *Sci. Rep. in press.*
- (7) Josse, G., Douki, T., Le Digabel, J., Gravier, E. and Questel, E. (2018) The use of suction blisters to measure sunscreen protection against UVR-induced DNA damage. *J. Photochem. Photobiol. B: Biol.* 179, 1-6.
- (8) Ikehata, H., Mori, T., Douki, T., Cadet, J. and Yamamoto, M. (2018) Quantitative analysis of UV photolesions suggests that cyclobutane pyrimidine dimers produced in mouse skin by UVB are more mutagenic than those produced by UVC. *Photochem. Photobiol.* 17, 404-413.
- (9) Hosseini, M., Dousset, L., Mahfouf, W., Serrano-Sanchez, M., Redonnet-Vernhet, I., Mesli, S., Kasraian, Z., Obre, E., Bonneu, M., Claverol, S., Vlaski, M., Ivanovic, Z., Rachidi, W., Douki, T., Taieb, A., Bouzier-Sore, A. K., Rossignol, R. and Rezvani, H. R. (2018) Energy Metabolism Rewiring Precedes UVB-Induced Primary Skin Tumor Formation. *Cell Rep.* 23, 3621-3634.
- (10) Douki, T., Corbiere, C., Preterre, D., Martin, P. J., Lecureur, V., Andre, V., Landkocz, Y., Pottier, I., Keravec, V., Fardel, O., Moreira-Rebello, S., Pottier, D., Vendeville, C., Dionnet, F., Gosset, P., Billet, S., Monteil, C. and Sichel, F. (2018) Comparative study of diesel and biodiesel exhausts on lung oxidative stress and genotoxicity in rats. *Environ. Pollut.* 235, 514-524.
- (11) Berube, R., Drigeard Desgarnier, M. C., Douki, T., Lechasseur, A. and Rochette, P. J. (2018) Persistence and Tolerance of DNA Damage Induced by Chronic UVB Irradiation of the Human Genome. *J. Invest. Dermatol.* 138, 405-412.
- (12) Biola-Clier, M., Beal, D., Caillat, S., Libert, S., Armand, L., Herlin-Boime, N., Sauvaigo, S., Douki, T. and Carriere, M. (2017) Comparison of the DNA damage response in BEAS-2B and A549 cells exposed to titanium dioxide nanoparticles. *Mutagenesis* 32, 161-172.

- (13) Banyasz, A., Martinez-Fernandez, L., Balty, C., Perron, M., Douki, T., Improta, R. and Markovitsi, D. (2017) Absorption of Low-Energy UV Radiation by Human Telomere G-Quadruplexes Generates Long-Lived Guanine Radical Cations. *J. Am. Chem. Soc.* *139*, 10561-10568.
- (14) Sauvaigo, S., Sarrazy, F., Batal, M., Caillat, S., Pitiot, B., Mouret, S., Clery-Barraud, C., Boudry, I. and Douki, T. (2016) Impact of topical application of sulfur mustard on mice skin and distant organs DNA repair enzyme signature. *Toxicol. Lett.* *241*, 71-81.
- (15) Gomez-Mendoza, M., Banyasz, A., Douki, T., Markovitsi, D. and Ravanat, J. L. (2016) Direct Oxidative Damage of Naked DNA Generated upon Absorption of UV Radiation by Nucleobases. *J. Phys. Chem. Lett.* *7*, 3945-3948.
- (16) Genies, C., Jullien, A., Lefebvre, E., Revol, M., Maitre, A. and Douki, T. (2016) Inhibition of the formation of benzo a pyrene adducts to DNA in A549 lung cells exposed to mixtures of polycyclic aromatic hydrocarbons. *Toxicol. Vitro* *35*, 1-10.
- (17) Douki, T. (2016) Relative Contributions of UVB and UVA to the Photoconversion of (6-4) Photoproducts into their Dewar Valence Isomers. *Photochem. Photobiol.* *92*, 587-594.
- (18) Barbier, E., Lagorce, A., Hachemi, A., Dutertre, M., Gorlas, A., Morand, L., Saint-Pierre, C., Ravanat, J. L., Douki, T., Armengaud, J., Gasparutto, D., Confalonieri, F. and Breton, J. (2016) Oxidative DNA Damage and Repair in the Radioresistant Archaeon *Thermococcus gammatolerans*. *Chem. Res. Toxicol.* *29*, 1796-1809.
- (19) Banyasz, A., Esposito, L., Douki, T., Perron, M., Lepori, C., Improta, R. and Markovitsi, D. (2016) Effect of C5-Methylation of Cytosine on the UV-Induced Reactivity of Duplex DNA: Conformational and Electronic Factors. *J. Phys. Chem. B* *120*, 4232-4242.
- (20) Abou-Hamdan, M., Gardette, B., Cadet, J., Gharib, B., De Reggi, M., Douki, T. and Triantaphylides, C. (2016) Molecular hydrogen attenuates radiation-induced nucleobase damage to DNA in aerated aqueous solutions. *Int. J. Radiat. Biol.* *92*, 536-541.
- (21) Premi, S., Wallisch, S., Mano, C. M., Weiner, A. B., Bacchiocchi, A., Wakamatsu, K., Bechara, E. J. H., Halaban, R., Douki, T. and Brash, D. E. (2015) Chemiexcitation of melanin derivatives induces DNA photoproducts long after UV exposure. *Science* *347*, 842-847.
- (22) Panitz, C., Horneck, G., Rabbow, E., Rettberg, P., Moeller, R., Cadet, J., Douki, T. and Reitz, G. (2015) The SPORES experiment of the EXPOSE-R mission: *Bacillus subtilis* spores in artificial meteorites. *Int. J. Astrobiol.* *14*, 105-114.
- (23) Mouret, S., Wartelle, J., Batal, M., Emorine, S., Bertoni, M., Poyot, T., Clery-Barraud, C., El Bakdouri, N., Peinnequin, A., Douki, T. and Boudry, I. (2015) Time course of skin features and inflammatory biomarkers after liquid sulfur mustard exposure in SKH-1 hairless mice. *Toxicol. Lett.* *232*, 68-78.
- (24) Forestier, A., Douki, T., De Rosa, V., Beal, D. and Rachidi, W. (2015) Combination of A beta Secretion and Oxidative Stress in an Alzheimer-Like Cell Line Leads to the Over-Expression of the Nucleotide Excision Repair Proteins DDB2 and XPC. *Int. J. Mol. Sci.* *16*, 17422-17444.
- (25) Douki, T., Rebelo-Moreira, S., Hamon, N. and Bayle, P. A. (2015) DNA Photochemistry: Geometrically Unconstrained Pyrimidine (6-4) Pyrimidone Photoproducts Do Photoisomerize. *Org. Lett.* *17*, 246-249.
- (26) Douki, T., Meador, J. A., Berard, I. and Wack, A. (2015) N4-Methylation of Cytosine Drastically Favors the Formation of (6-4) Photoproducts in a TCG Context. *Photochem. Photobiol.* *91*, 102-108.
- (27) Batal, M., Rebelo-Moreira, S., Hamona, N., Bayle, P. A., Mouret, S., Clery-Barraud, C., Boudry, I. and Douki, T. (2015) A guanine-ethylthioethyl-glutathione adduct as a major DNA lesion in the skin and in organs of mice exposed to sulfur mustard. *Toxicol. Lett.* *233*, 1-7.

- (28) Bacqueville, D., Douki, T., Duprat, L., Rebelo-Moreira, S., Guiraud, B., Dromigny, H., Perier, V., Bessou-Touya, S. and Duplan, H. (2015) A new hair follicle-derived human epidermal model for the evaluation of sunscreen genoprotection. *J. Photochem. Photobiol. B: Biol.* **151**, 31-38.
- (29) Sadr-Arani, L., Mignon, P., Chermette, H. and Douki, T. (2014) Theoretical and experimental study of the fragmentation of protonated uracil. *Chem. Phys. Lett.* **605**, 108-114.
- (30) Meador, J. A., Baldwin, A. J., Pakulski, J. D., Jeffrey, W. H., Mitchell, D. L. and Douki, T. (2014) The significance of the Dewar valence photoisomer as a UV radiation-induced DNA photoproduct in marine microbial communities. *Environ. Microbiol.* **16**, 1808-1820.
- (31) Esposito, L., Banyasz, A., Douki, T., Perron, M., Markovitsi, D. and Improta, R. (2014) Effect of C5-Methylation of Cytosine on the Photoreactivity of DNA: A Joint Experimental and Computational Study of TCG Trinucleotides. *J. Am. Chem. Soc.* **136**, 10838-10841.
- (32) Douki, T., Berard, I., Wack, A. and Andra, S. (2014) Contribution of Cytosine-Containing Cyclobutane Dimers to DNA Damage Produced by Photosensitized Triplet-Triplet Energy Transfer. *Chem.-Eur. J.* **20**, 5787-5794.
- (33) Batal, M., Boudry, I., Mouret, S., Clery-Barraud, C., Wartelle, J., Berard, I. and Douki, T. (2014) DNA damage in internal organs after cutaneous exposure to sulphur mustard. *Toxicol. Appl. Pharmacol.* **278**, 39-44.
- (34) Albarracin, V. H., Simon, J., Pathak, G. P., Valle, L., Douki, T., Cadet, J., Borsarelli, C. D., Farias, M. E. and Gartner, W. (2014) First characterisation of a CPD-class I photolyase from a UV-resistant extremophile isolated from High-Altitude Andean Lakes. *Photochem. Photobiol. Sci.* **13**, 739-750.
- (35) Montillet, J. L., Leonhardt, N., Mondy, S., Tranchimand, S., Rumeau, D., Boudsocq, M., Garcia, A. V., Douki, T., Bigeard, J., Lauriere, C., Chevalier, A., Castresana, C. and Hirt, H. (2013) An Abscisic Acid-Independent Oxylin Pathway Controls Stomatal Closure and Immune Defense in *Arabidopsis*. *PLoS Biol.* **11**, 15.
- (36) Labet, V., Jorge, N., Morell, C., Douki, T., Grand, A., Cadet, J. and Eriksson, L. A. (2013) UV-induced formation of the thymine-thymine pyrimidine (6-4) pyrimidone photoproduct - a DFT study of the oxetane intermediate ring opening. *Photochem. Photobiol. Sci.* **12**, 1509-1516.
- (37) Jamin, E. L., Riu, A., Douki, T., Debrauwer, L., Cravedi, J. P., Zalko, D. and Audebert, M. (2013) Combined Genotoxic Effects of a Polycyclic Aromatic Hydrocarbon (B(a)P) and an Heterocyclic Amine (PhIP) in Relation to Colorectal Carcinogenesis. *PLoS One* **8**, 11.
- (38) Genies, C., Maitre, A., Lefebvre, E., Jullien, A., Chopard-Lallier, M. and Douki, T. (2013) The Extreme Variety of Genotoxic Response to Benzo(a)pyrene in Three Different Human Cell Lines from Three Different Organs. *PLoS One* **8**, 11.
- (39) Batal, M., Boudry, I., Mouret, S., Wartelle, J., Emorine, S., Bertoni, M., Berard, I., Clery-Barraud, C. and Douki, T. (2013) Temporal and spatial features of the formation of DNA adducts in sulfur mustard-exposed skin. *Toxicol. Appl. Pharmacol.* **273**, 644-650.
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- (43) Perche-Letueve, P., Kathirvelu, V., Berggren, G., Clemancey, M., Latour, J. M., Maurel, V., Douki, T., Armengaud, J., Mulliez, E., Fontecave, M., Garcia-Serres, R., Gambarelli, S. and Atta, M. (2012) 4-Demethylwyosine Synthase from *Pyrococcus abyssi* Is a Radical-S-adenosyl-L-methionine

- Enzyme with an Additional 4Fe-4S (+2) Cluster That Interacts with the Pyruvate Co-substrate. *J. Biol. Chem.* 287, 41174-41185.
- (44) Noonan, F. P., Zaidi, M. R., Wolnicka-Glubisz, A., Anver, M. R., Bahn, J., Wielgus, A., Cadet, J., Douki, T., Mouret, S., Tucker, M. A., Popratiloff, A., Merlino, G. and De Fabo, E. C. (2012) Melanoma induction by ultraviolet A but not ultraviolet B radiation requires melanin pigment. *Nat. Commun.* 3, 10.
- (45) Mouret, S., Forestier, A. and Douki, T. (2012) The specificity of UVA-induced DNA damage in human melanocytes. *Photochem. Photobiol. Sci.* 11, 155-162.
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- (31) Douki, T. and Cadet, J. (1995) UV and nucleic acids, In *Interface between chemistry and biochemistry* (Jörnvall, H. and Jollès, P., Eds.) pp 173-197, Birkhäuser Verlag AG, Basel, Switzerland.
- (32) Cadet, J., Berger, M., Douki, T., Voituriez, L., Angelov, D. and Vigny, P. (1992) DNA base damage induced by ultraviolet radiations, In *Selected Topics in Photobiology* (Jain, V. and Goel, H., Eds.) pp 36-50, Indian Photobiology Society, New Dehli.

4. Invited lectures to International Conferences

- (1) *39th Meeting of the American Society for Photobiology*, Tampa (USA) May 2018; *Invited Lecture* "Co-exposure to benzo[a]pyrene and simulated sunlight affects both formation of DNA adducts and repair of pyrimidine dimers". By T. Douki, von Koschembahr, A., Youssef, A., Béal, D., Leccia, M.-T., and Maitre, A.; *Research Award Lecture* "Sunlight genotoxicity: a challenge to action spectra?". By T. Douki,
- (2) *Workshop "DNA Damage and Repair: Computations Meet Experiments"*, Leiden NL, November 2017; *Invited Lecture* "DNA damage induced by mixtures of genotoxic agents". By T. Douki,
- (3) *Joint Congress of the French and Italian Photochemists and Photobiologists*, Bari, September 2016; *Invited Lecture*: "Recent advances in the formation of DNA damage by UV radiation: from test tube experiments to human skin" by T. Douki, J.-L. Ravanat, M. Gomez Mendoza, A. Banyasz, D. Markovitsi and E. Sage
- (4) *16th Congress of the European Society for Photobiology*, Aveiro, Portugal, September 2015; *Invited Lecture*: "Dewar valence isomer, a biologically relevant DNA photoproduct produced by combined exposure to UVB and UVA" By T. Douki
- (5) *44th Annual meeting of the European Environmental Mutagenesis and Genetics Society*, Prague, république Tchèque, August 2015.; *Invited Lecture*: "Non-additive genotoxic effects of mixtures of polycyclic aromatic hydrocarbons applied to human cells" By T. Douki, A. Maître, C. Génies and A. Tarantini
- (6) *Melanoma 2013*, Hambourg, Allemagne, July 2013; *Invited Lecture*: "Sunbeds use: What are the biological consequences to the skin?" By T. Douki
- (7) *15th Meeting of the European Society for Photobiology*, Liège, Belgique, September 2013; *Invited Lecture*: "Photosensitized triplet-triplet energy transfer in DNA: formation of cytosine-containing cyclobutane dimers". By T. Douki
- (8) *Workshop "UV-radiation induced disease, roles of UVA and UVB"*, Stockholm, Suède, May 2012; *Invited Lecture*: "Recent advances in the formation of UV-induced DNA damage". By T. Douki
- (9) *9th Winter Research Conference*, Les Houches, France, March 2012; *Invited Lecture*: Respective contribution of oxidative and direct DNA damage to the genotoxicity of UVA. By T. Douki, JL Ravanat, S. Mouret, E. Sage, JC. Béani, MT Leccia, D. Markovitsi and A. Banyasz.
- (10) *Joint Meeting of the Italian and French Societies for Photobiology*, Paris, October 2010; *Invited lecture*: "Pyrimidine cyclobutane dimers in DNA: do we know everything after 50 years?" By T. Douki
- (11) *35th Meeting of the American Society for Photobiology*, Providence (USA) June 2010. *Invited Lecture*: "UVA-induced cyclobutane pyrimidine dimers: from test tube experiments to a clinical study". By T. Douki, S. Mouret, J. Cadet, A. Favier, E. Sage, J.-C. Béani, D. Markovitsi, A. Banyasz.

- (12) *13th Congress of the European Society for Photobiology*, Wroclaw (Pologne) September 2009; *Invited Lecture*: "Lesion- and cell type-dependent repair of pyrimidine dimers in human skin and cultured keratinocytes and fibroblasts" By T. Douki, S. Mouret, J. Cadet, A. Favier and M. Charveron; *Invited Lecture*: " The DNA damaging properties of 4-hydroxy-2-nonenal, a major product of lipid peroxidation, in human cells" By T. Douki et O. Falletti.
- (13) *8th Winter Research Conferences on "Oxidative DNA damage: from chemical aspects to biological consequences"* Les Houches (France) January 2009; *Invited Lecture*: " HPLC-mass spectrometry analysis and Comet assay measurements of DNA damage induced by benzo[a]pyrene" By T. Douki, A. Tarantini, A. Maitre, C. Marie and J.-L. Ravanat.
- (14) *Colloque "Les hydrocarbures aromatiques polycycliques, de la recherche à la prévention"*, Montréal (Canada) September 2008. *Invited Lecture*: " Effets génotoxiques d'une exposition combinée aux HAP et au rayonnement UV". By T. Douki, Z. Ksoury, C. Marie, J.-L. Ravanat and Anne Maître.
- (15) *34th Meeting of the American Society for Photobiology*, San Francisco (USA) June 2008; *Invited Lecture*: "Hierarchy of repair of the different cyclobutane pyrimidine dimers in human skin and cultured cells". By T. Douki, S. Mouret, M. Charveron, J. Cadet, A. Favier.
- (16) *13th International Congress on Radiation Research*, San Francisco (USA) July 2007. *Conférence invitée*: "Spectrum of radiation-induced DNA damage in cells", By T. Douki, Olivier Falletti, Jean-Luc Ravanat and Jean Cadet.
- (17) *12th Congress of the European Society for Photobiology*, Bath (UK) September 2007; *Invited Lecture* : "Specific features of the formation and repair of far-UV induced dimeric photoproducts at the four bipyrimidine dinucleotides within isolated and cellular DNA" By T. Douki, S. Mouret, E. Sage, F. Joux, J. Meador, S. Matallana-Surget and J. Cadet.
- (18) *Workshop "UV-radiation induced disease - Roles of UVA and UVB"*, Karolinska Institutet, Stockholm (Sweden) October 2007. *Invited Lecture*: "UVA-induced DNA damage in cells: oxidative lesions and pyrimidine dimers" By T. Douki.
- (19) *7th Winters Research Conferences*, les Houches (France) March 2006, *Invited Lecture*: "Respective contributions of direct and indirect effects to high let heavy ions-induced DNA damage", By T. Douki, J.-L. Ravanat, J.-P. Pouget, A. Favier and J. Cadet.
- (20) *IXth International Workshop on Radiation Damage to DNA*, Antalya (Turkey), May 2006. *Invited Lecture*: "DNA base damage induced by low and high LET radiations" By T. Douki, J.-L. Ravanat and J. Cadet.
- (21) *33rd Meeting of the American Society for Photobiology*, Rio Grande (Puerto Rico), July 2007, *New Investigator Award lecture*: "UVA-induced DNA damage in human skin cells", By T. Douki.
- (22) *11th Congress of the European Society for Photobiology*, Aix-les-Bains (France), September 2005, *Invited Lecture*: Formation and repair of bipyrimidine photoproducts in mammalian cells exposed to UVB and UVA radiations, By T. Douki, S. Courdavault, E. Sage, C. Baudouin, M. Charveron, A. Favier and J. Cadet
- (23) *6th Winter Research Conference*, Les Houches (France), March 2003; *Invited Lecture*: "Mechanisms of formation of exocyclic DNA adducts", By T. Douki, A. Favier and J. Cadet.
- (24) *7th Congress of the European Society for Photobiology*, Stresa, Italy, Septembre 1997; *Invited Lecture*: Formation of damage in DNA by UV light, By T. Douki, J.-L. Ravanat, S. Spinelli and J. Cadet.

5. Published Meeting Proceedings

- (1) Albarracin, V. H., Pathak, G. P., Douki, T., Cadet, J., Borsarelli, C. D., Gartner, W. and Farias, M. E. (2012) Extremophilic *Acinetobacter* Strains from High-Altitude Lakes in Argentinean Puna: Remarkable UV-B Resistance and Efficient DNA Damage Repair. *Orig. Life Evol. Biosph.* **42**, 201-221.
- (2) Badouard, C., Menezo, Y., Panteix, G., Ravanat, J. L., Douki, T., Cadet, J. and Favier, A. (2008) Determination of new types of DNA lesions in human sperm. *Zygote* **16**, 9-13.
- (3) Cadet, J., Courdavault, S., Ravanat, J. L. and Douki, T. (2005) UVB and UVA radiation-mediated damage to isolated and cellular DNA. *Pure Appl. Chem.* **77**, 947-961.
- (4) Cadet, J., Douki, T., Gasparutto, D. and Ravanat, J. L. (2003) Oxidative damage to DNA: formation, measurement and biochemical features. *Mutat. Res.* **531**, 5-23.
- (5) Cadet, J., Douki, T., Frelon, S., Gasparutto, D., Ravanat, J. L., Sauvaigo, S., Martinez, G. R., Medeiros, M. H. G. and Di Mascio, P. (2002) *Oxidative damage to DNA: Formation and measurement*, Medimond S R L, 40128 Bologna.
- (6) Onuki, J., Teixeira, P. C., Medeiros, M. H. G., Dornemann, D., Douki, T., Cadet, J. and Di Mascio, P. (2002) Is 5-aminolevulinic acid involved in the hepatocellular carcinogenesis of acute intermittent porphyria? *Cell. Mol. Biol.* **48**, 17-26.
- (7) Cadet, J., Bourdat, A. G., Douki, T., Frelon, S., Gasparutto, D., Muller, E., Pouget, J. P., Ravanat, J.-L., Romieu, A. and Sauvaigo, S. (2001) Radiation-induced damage to cellular DNA: measurement and biological role. *Romanian Reports in Physics.*
- (8) Douki, T., Court, M. and Cadet, J. (2000) Electrospray-mass spectrometry characterization and measurement of far-UV-induced thymine photoproducts. *J. Photochem. Photobiol. B: Biol.* **54**, 145-154.
- (9) Cadet, J., Berger, M., Douki, T., Gasparutto, D., Pouget, J. P., Ravanat, J.-L. and Sauvaigo, S. (1999) Dommages des acides nucléiques induits après exposition aux rayonnements X et UV. *J. Phys. IV* **9**, 91-95.
- (10) Cadet, J., Douki, T., Gasparutto, D., Gromova, M., Pouget, J. P., Ravanat, J. L., Romieu, A. and Sauvaigo, S. (1999) Radiation-induced damage to DNA: mechanistic aspects and measurement of base lesions. *Nucl. Instrum. Methods Phys. Res. Sect. B-Beam Interact. Mater. Atoms* **151**, 1-7.
- (11) Dany, A. L., Triantaphylides, C., Cadet, J. and Douki, T. (1999) Optimisation of *Arabidopsis thaliana* DNA extraction for the analysis of 8-oxo-7,8-dihydro-2'-deoxyguanosine formation after gamma irradiation. *J. Chim. Phys.-Chim. Biol.* **96**, 152-161.
- (12) Douki, T., Delatour, T., Martini, R. and Cadet, J. (1999) Radiation-induced degradation of DNA bases. *J. Chim. Phys.-Chim. Biol.* **96**, 138-142.
- (13) Pouget, J. P., Ravanat, J. L., Douki, T., Richard, M. J. and Cadet, J. (1999) Use of the comet assay to measure DNA damage in cells exposed to photosensitizers and gamma radiation. *J. Chim. Phys.-Chim. Biol.* **96**, 143-146.
- (14) Ravanat, J. L., Douki, T., Turesky, R. and Cadet, J. (1997) Measurement of oxidized bases in DNA. Comparison between HPLC-EC and GC-MS assays. *J. Chim. Phys.-Chim. Biol.* **94**, 306-312.
- (15) Douki, T., Bianchini, F., Delatour, T., Paganon, F., Ravanat, J.-L. and Cadet, J. (1996) Detection of oxidized DNA bases by chromatographic methods. *Radioprotection* **32**, C1-91.
- (16) Douki, T., Voituron, Y. and Cadet, J. (1991) Photochemistry of d(CpT): isolation and structure determination of the pyrimidine (6-4) pyrimidone photoadduct and of its Dewar valence isomer. *Collection Czechoslovak Chem. Commun.* **55**, 277-280.

6. Scientific Popularization

- (1) Douki, T., Mouret, S., Sage, E., Beani, J. C., Warrick, E., Bernerd, F., Sarasin, A. and Magnaldo, T. (2011) Quand les UV s'attaquent au génome. *Biofutur*, 42-46.
- (2) Douki, T., Ravanat, J. L., Markovitsi, D. and Sage, E. (2011) Comment l'ADN réagit sous le soleil. *Pour la Science* 406, 44-51.
- (3) Belloni, J., Mostafavi, M., Douki, T. and Spothem-Maurizot, M. (2008) La chimie sous rayonnement : des aspects fondamentaux aux applications dans les sciences des matériaux et les sciences de la vie. *Actual Chim.*, I-XX.
- (4) Douki, T., Leccia, M. T., Beani, J. C., Mouret, S., Cadet, J. and Favier, A. (2007) Effets néfastes du rayonnement UVA solaire : de nouveaux indices dans l'ADN. *Médecine & Sciences* 23, 124-126.
- (5) Markovitsi, D., Chouini-Lalanne, N., Clivio, P., Douki, T., Gustavsson, T., Lazzarotto, E., Marguet, S., Onidas, D., Ravanat, J. L., Steenkeste, K., Talbot, F. and Teulade-Fichou, M. P. (2007) Les photodommages de l'ADN. *Actual Chim.*, 8-14.