

BIBLIOGRAPHY

- Agrawal, S., Ashokraj, Y., Bharatam, P.V., Pillai, O. and Panchagnula, R., 2004. Solid-state characterization of rifampicin samples and its biopharmaceutic relevance. *Eur. J. Pharm. Sci.* 22, 127-144.
- Bain, D.F., Munday, D.L. and Cox, P.J., 1998. Evaluation of biodegradable rifampicin-bearing microsphere formulations using a stability-indicating high-performance liquid chromatographic assay. *Eur. J. Pharm. Sci.* 7, 57-65.
- Bardou, F., Raynaud, C., Ramos, C., Lanéelle, A. and Lanéelle, G., 1998. Mechanism of isoniazid uptake in *Mycobacterium tuberculosis*. *Microbiology* 144, 2539-2544.
- Bisgaard, H., 1998. Targeting drugs to the respiratory tract. *Res. Immunol.* 149, 229-331.
- Blanc, D.C. and Nunn, P., 1999. *Incentives and disincentives for new anti-tuberculosis drug development*. Geneva, World Health Organization. Available online at : <http://www.who.int.tdr>.
- Boer, A.H., Gjaltema, D., Hagedoorn, P., Schaller, M., Witt, W. and Frijlink, H.W., 2002. Design and application of a new modular adapter for laser diffraction characterization of inhalation aerosols. *Int. J. Pharm.* 249, 233-245.

- Bosquillon, C., Lombry, C., Pr at, V. and Vanbever, R., 2001. Influence of formulation excipients and physical characteristics of inhalation dry powders on their aerosolization performance. *J. Control. Release* 70, 329-339.
- Bosquillon, C., Rouxhet, P.G., Ahimou, F., Simon, D., Culot, C., Pr at, V. and Vanbever, R., 2004. Aerosolization properties, surface composition and physical state of spray-dried protein protein powders. *J. Control. Release* 99, 357-367.
- Brewer, G.A., 1977. Isoniazid. In : Florey, K. (Ed.), *Analytical profile of drug substances Volume 6*. New York : Academic Press. pp. 183-258.
- British Pharmaceutical Conference, 2002. Patient and industry views on inhalers. *P.J.* 269, 536-537.
- British Pharmacopoeia, 1998. Aerodynamic Assessment of Fine Particles. Her Majesty's Stationery Office, Appendix XII F.
- Calleri, E., Lorenzi, E.D., Furlanetto, S., Massolini, G. and Caccialanza, G., 2002. Validation of a RP-LC method for the simultaneous determination of isoniazid, pyrazinamide and rifampicin in a pharmaceutical formulation. *J. Pharmaceut. Biomed.* 29, 1089-1096.
- Campbell, E.A., Korzheva, N., Mustaev, A., Murakami, K., Nair, S., Goldfarb, A. and Darst, S.A., Structural mechanism for rifampicin inhibition of bacterial RNA polymerase. *Cell* 104, 901-912.

- Challoner, P.B., 2002. Chapter 15 Aerosol delivery of antibiotics. In : *Annual Reports in Medicinal Chemistry. s.l., Elsevier Sciences.* pp. 149-158.
- Chan H.K. and Chew, N.Y.K., 2003. Novel alternative methods for the delivery of drugs for the treatment of asthma. *Adv. Drug Deliv. Rev.* 55, 793-805.
- Coban, A.Y., Birinci, A., Ekinci, B. and Durupinar, B., 2004. Drug susceptibility testing of *Mycobacterium tuberculosis* by the broth microdilution method with 7H9 broth. *Mem. Inst. Oswaldo Cruz* 99(1), 111-113.
- Cortes, F.V. and Caekenberghe, D.V., 1997. Glassification and its applications. *Ann Med. Milit. Belg.* 11(1), 17-23.
- Deol, P. and Khuller, G.K., 1997. Lung specific stealth liposomes : stability, biodistribution and toxicity of liposomal antitubercular drugs in mice. *Biochim. Biophys. Acta* 1334, 161-172.
- Dhople, A.M., Dhople, A.A. and Ibanez, M.A., 1997. Comparative *in vitro* activities of rifamycin analogues against rifampin-sensitive and rifampin-resistant *Mycobacterium tuberculosis*. *Int. J. Antimicrob. Ag.* 8, 209-214.
- Drobniewski, F., 2002. Antimicrobial susceptibility testing of *Mycobacterium tuberculosis*. Eucast Discussion Document E. DIS 8.1 December 2001. Available online at : <http://www.escmid.org/seviware/Script/SvFiles.asp?Ref=312>.

- Dutt, M. and Khuller, G.K., 2001a. Liposome and PLG microparticles as sustained release antitubercular drug carriers-an *in vitro-in vivo* study. *Int. J. Antimicrob. Ag.* 18, 245-252.
- Dutt, M. and Khuller, G.K., 2001b. Sustained release of isoniazid from a single injectable dose of poly (DL-lactide-co-glycolide) microparticles as a therapeutic approach towards tuberculosis. *Int. J. Antimicrob. Ag.* 17, 115-122.
- European Pharmacopeia, 2002. European Directorate for the Quality of Medicine, Strasbourg, France.
- Falk, R., Randolph, T.W., Meyer, J.D., Kelly, R.M. and Manning, M.C., 1997. Controlled release of ionic compounds from poly(L-lactide) microspheres produced by precipitation with a compressed antisolvent. *J. Control. Release* 44, 77-85.
- Flament, M.P., Leterme, P. and Gayot, A., 2004. The influence of carrier roughness on adhesion, content uniformity and the *in vitro* deposition of terbutaline sulphate from dry powder inhalers. *Int. J. Pharm.* 275, 201-209.
- French, D., Edwards, D.A. and Niven, R.W., 1996. The influence of formulation on emission, deaggregation and deposition of dry powders for inhalation. *J. Aerosol Sci.* 5, 769-783.

- Gallo, G.C. and Radaelli, P., 1976. Rifampicin. In : Florey, K. (Ed.), *Analytical profile of drug substances Volume 5*. New York : Academic Press. pp. 467-513.
- Genium Publishing Corporation, 1999. *Genium's Handbook of Safty, Health, and Environmental Data for common hazardous substances*. New York, McGraw-Hill.
- Ghanta, J., Shen, C.L., Kiessling, L.L. and Murphy, R.M., A strategy for designing inhibitors of β -amyloid toxicity. *J. Biol Chem.* 271(47), 29525-29528.
- Gilani, K. Najafabadi, A.R., Barghi, M. and Rafiee-Tehrani, M., 2004. Aerosolisation of beclomethasone dipropionate using spray dried lactose/polyethylene glycol carriers. *Eur. J. Pharm. Biopharm.* 58, 595-606.
- Golfinopoulos, S.K., Kostopoulou, M.N. and Lekkas, T.D., 1998. Volatile halogenated organics in the water supply system in Athens, Greece. *Water Res.* 32 (6), 1811-1818.
- Groves, M.J., 1997. BCG : the past, present and future of a tuberculosis vaccine. *J. Pharm. Pharmacol.* 49 (suppl. 1), 7-15.
- Grange, J.M. and Zumla, A., 2002. Chapter 57 Tuberculosis. In Section 1 Underlying factor in tropical medicine. *s.l., s.n.*

- Gürsoy, A., Kut, E. and Özkırmı, S., 2004. Co-encapsulation of isoniazid and rifampicin in liposomes and characterization of liposomes by derivative spectroscopy. *Int. J. Pharm.* 271, 115-123.
- Hallworth, G.W. and Westmoreland, D.G., 1987. The twin impinger : a simple device for assessing the delivery of drugs from metered dose pressurized aerosol inhalers. *J. Pharm. Pharmacol.* 39, 966-972.
- Harjunen, P., Lehto, V., Martimo, K., Suihko, E., Lankinen, T., Paronen, P. and Järvinen, K., 2002. Lactose modifications enhance its drug performance in the novel multiple dose Taifun® DPI. *Eur. J. Pharm. Sci.* 16, 313-321.
- Hickey, A.J., 1992. *Pharmaceutical Inhalation Aerosol Technology*. Marcel Dekker, New York.
- Higashiyama, T., 2002. Novel functions and applications of trehalose. *Pure Appl. Chem.* 74(7), 1263-1269.
- ICH, 1996. *Guidance for Industry Q2B Validation of Analytical Procedures : Methodology*. Center for Drug Evaluation and Research (CDER), Rockville, MD, USA.
- Khuller, G.K. and Pandey, R., 2003. Sustained release drug delivery systems in management of tuberculosis. *Indian J. Chest Dis. Allied Sci.* 45, 229-230.

- Kirk, S.M., Mazurek, G.H., Callister, S.M., Moore, A.V. and Schell, R.F., 1998a. *Mycobacterium tuberculosis* susceptibility results in 24 hours by using flow cytometry. *CMNEEJ.* 20, 83-87.
- Kirk, S.M. Schell, R.F., Moore, A.V., Callister, S.M. and Mazurek, G.H., 1998b. Flow cytometric testing of susceptibilities of *Mycobacterium tuberculosis* isolates to ethambutol, isoniazid, and rifampin in 24 hours. *J. Clin. Microbiol.* 36 (6), 1568-1573.
- Kostopoulou, M.N., Golfopoulos, S.K., Nikolaou, A.D., Xilourgidis, N.K. and Lekkas, T.D., 2000. Volatile organic compounds in the surface waters of Northern Greece. *Chemosphere* 40, 527-532.
- Larhrib, H., Martin, G.P., Prime, D. and Marriott, C., 2003a. Characterisation and deposition studies of engineered lactose crystals with potential for use as a carrier for aerosolised salbutamol sulfate from dry powder inhalers. *Eur. J. Pharm. Sci.* 19, 211-221.
- Larhrib, H., Martin, G.P., Marriott, C. and Prime, D., 2003b. The influence of carrier and drug morphology on drug delivery from dry powder formulations. *Int. J. pharm.* 257, 283-296.
- Leite, C.Q.F., Beretta, A.L.R.Z., Anno, I.S. and Telles, M.A.S., 2000. Standardization of broth microdilution method for *Mycobacterium tuberculosis*. *Mem. Inst. Oswaldo Cruz* 95(1), 127-129.

- Liu, Y., Tsapis, N. and Edwards, D.A., 2003. Investigating sustained-release nanoparticles for pulmonary drug delivery. Available online at : http://www.eduprograms.deas.harvard.edu/reu03_papers/Liu.Y.FinReport03.pdf.
- Louey, M.D., Razia, S. and Stewart, P.J., 2003. Influence of physico-chemical carrier properties on the *in vitro* aerosol deposition from interactive mixtures. *Int. J. Pharm.* 252, 87-98.
- Malcolmson, R.J. and Embleton, J.K., 1998. Dry powder formulations for pulmonary delivery. *PSTT*. 1(9), 394-398.
- McClatchy, J.K., 1971. Mechanism of action of isoniazid on *Mycobacterium bovis* strain BCG. *Infect. Immun.* 1971, 530-534.
- Miller, D.P., Pablo, J.J. and Corti, H., 1997. Thermophysical properties of trehalose and its concentrated aqueous solutions. *Pharm. Res.* 14(5), 578-590.
- Mitchell, J.P., Costa, P.A. and Waters, S., 1988. An assessment of an Andersen Mark-II cascade impactor. *J. Aerosol. Sci.* 19(2), 213-221.
- Mitchell, J.P. and Nagel, M.W., 2004. Particle size analysis of aerosols from medicinal inhalers. *KONA* 22, 32-65.

- Mitchell, J.P., Nagel, M.W., Wiersema, K.J. and Doyle, C.C., 2003. Aerodynamic particle size analysis of aerosols from pressurized metered dose inhalers : comparison of Andersen 8-stage cascade impactor, next generation pharmaceutical impactor, and model 3321 aerodynamic particle sizer aerosol spectrometer. *AAPS PharmSciTech.* 4(4), 1-9. Article 54 (<http://www.aapspharmscitech.org>).
- Mohamad, S., Ibrahim, P. and Sadikun, A., 2004. Susceptibility of *Mycobacterium tuberculosis* to isoniazid and its derivatives, 1-isonicotinyl-2-nonanoyl hydrazine : investigation at cellular level. *Tuberculosis* 84, 56-62.
- Mori, H., Mio, H., Kano, J. and Saito, F., 2004. Ball mill simulation in wet grinding using a tumbling mill and its correlation to grinding rate. *Powder Technol.* 143-144, 230-239.
- Müller, M., Mackeben, S. and Müller-Goymann, C.C., 2004. Physicochemical characterization of liposomes with encapsulated local anaesthetics. *Int. J. Pharm.* 274, 139-148.
- Norden, M.A., Kurzynski, T.A. Bownds, S.E., Callister, S.M. and Schell, R.F., 1995. Rapid susceptibility testing of *Mycobacterium tuberculosis* (H37Ra) by flow cytometry. *J. Clin. Microbiol.* 33 (5), 1231-1237.
- Okamoto, H., Todo, H., Iida, K. and Danjo, K., 2002. Dry powders for pulmonary delivery of peptides and proteins. *KONA* 20, 71-83.

- Opanasopit, P., Higuchi, Y., Kawakami, S., Yamashita, F., Nishikawa, M. and Hashida, M., 2001. Involvement of serum mannan binding proteins and mannose receptors in uptake of mannosylated liposomes by macrophages. *Biochim. Biophys. Acta* 1511, 134-145.
- Panchagnula, R. and Agrawal, S., 2004. Biopharmaceutic and pharmacokinetic aspects of variable bioavailability of rifampicin. *Int. J. Pharm.* 271, 1-4.
- Philip V.A., Mehta, R.C., Mazumder, M.K. and DeLuca, P.P., 1997. Effect of surface treatment on the respirable fractions of PLGA microspheres formulated for dry powder inhalers. *Int. J. Pharm.* 151, 165-174.
- Platz, R.M., Patton, J.S., Foster, L. and Eljamal, M., 2003. Spray drying of macromolecules to produce inhalable dry powder. *Pharmaceutical Patents*. Available online at : http://www.pharmacast.com/Patents/Y2003/June2003/6582728_SprayDrying062403.htm.
- Rastogi, N., Goh, K.S., Berchel, M. and Bryskier, A., 2000. Activity of rifapentine and its metabolite 25-O-desacetyl-rifapentine compared with rifampicin and rifabutin against *Mycobacterium tuberculosis*, *Mycobacterium africanum*, *Mycobacterium bovis* and *M. bovis* BCG. *J. Antimicrob. Chemoth.* 46, 565-570.
- Raynolds, J. E. F., (Ed.), 1993. *Martindale The Extra Pharmacopoeia*. 3rd ed. London, The Pharmaceutical Press.

- Reichman, L.B. and Hershfield, E.H., (Ed.), 2000. Tuberculosis A Comprehensive International Approach. 2nd ed., Marcel Dekker, New York.
- Reverchon, E., Macro, I.D. and Porta, G.D., 2002. Rifampicin microparticles production by supercritical antisolvent precipitation. *Int. J. Pharm.* 243, 83-91.
- Roos, Y.H., 2002. Importance of glass transition and water activity to spray drying and stability of dairy powders. *Lait* 82, 475-484.
- Sethuraman, V.V. and Hickey, A.J., 2001. Evaluation of preseparator performance for the 8-stage nonviable Andersen impactor. *AAPS PharmSciTech.* 2(1), 1-9. Article 4 (<http://www.aapspharmsci.org>).
- Sethuraman, V.V. and Hickey, A.J., 2002. Powder properties and their influence on dry powder inhaler delivery of an antitubercular drug. *AAPS PharmSciTech.* 3(4), 1-10. Article 28 (<http://www.aapspharmsci.org>).
- Sham, J.O.H., Zhang, Y., Finlay, W.H., Roa, W.H. and Löbenberg, R., 2004. Formulation and characterization of spray-dried powders containing nanoparticles for aerosol delivery to the lung. *Int. J. Pharm.* 269, 457-467.
- Sharma, R., Saxena, D., Dwivedi, A.K. and Misra, A., 2001. Inhalable microparticles containing drug combinations to target alveolar macrophages for treatment of pulmonary tuberculosis. *Pharm. Res.* 18(10), 1405-1410.
- Shekunov, B.Y., Feeley, J.C., Chow, A.H.L., Tong, H.H.Y. and York, P., 2003. *J. Aerosol Sci.* 34, 553-568.

- Smith, I.J. and Parry-Billings, M., 2003. The inhalers of the future ? A review of dry powder devices on the market today. *Pulm. Pharmacol. Ther.* 16, 79-95.
- Srichana, T., 1998. *A study of some factors affecting the deposition of drug and excipients following aerosolization of dry powders.* PhD thesis. Submitted at University of London, Department of Pharmacy, King's College London, London, UK. (Unpublished)
- Srichana, T. Suedee, R. and Reanmongkol, W., 2001. Cyclodextrin as a potential drug carrier in salbutamol dry powder aerosols : the *in-vitro* deposition and toxicity studies of the complexes. *Resp. Med.* 95, 513-519.
- Srichana, T., Suedee, R. and Srisudjai, P., 2003. Application of spectrofluorometry for evaluation of dry powder inhalers *in vitro*. *Pharmazie* 58, 125-129.
- Stahlberg, H., Kutejová, E., Suda, K., Wolpensinger, B., Lustig, A., Schatz, G., Engel, A. and Suzuki, C.K., 1999. Mitochondrial Ion og *Saccharomyces cerevisiae* is a ring-shaped protease with seven flexible subunits. *Proc. Natl. Acad. Sci. USA* 96, 6787-6790.
- Steckel, H. and Bolzen, N., 2004. Alternative sugars as potential carriers for dry powder inhalations. *Int. J. Pharm.* 270, 297-306.
- Steckel, H. and Brandes, H.G., 2004. A novel spray-drying technique to produce low density particles for pulmonary delivery. *Int. J. Pharm.* 278, 187-195.
- Steckel, H., Markefka, P., teWierik, H. and Kammelar, R., 2004. Functionality testing of inhalation grade lactose. *Eur. J. Pharm. Biopharm.* 57, 495-505.

- Storey, S., 2004. Tuberculosis-a general introduction. *P. J.* 273, 289-291.
- Suarez, S. and Hickey, A., 2000. Drug properties affecting aerosol behavior. *Respir. Care.* 45(6), 652-666.
- Suarez, S., O'Hara, P. Kazantseva, M. Newcomer, C.E., Hopfer, R., McMurray, D.N. and Hickey, A.J., 2001. Respirable PLGA microspheres containing rifampicin for the treatment of tuberculosis : screening in an infectious disease model. *Pharm. Res.* 18(9), 1315-1319.
- Tee, S.K., Marriott, C., Zeng, X.M. and Martin, G.P., 2000. The use of different sugars as fine and coarse carriers for aerosolised salbutamol sulphate. *Int. J. Pharm.* 208, 111-123.
- Tsapis, N. Bennett, D., Jackson, B., Weitz, D.A. and Edwards, D.A., 2002. Trojan particles : large porous carriers of nanoparticles for drug delivery. *PNAS* 99(19), 12001-12005.
- Tsapis, N., Bennett, D., O'Driscoll, K., Shea, K., Lipp, M.M., Fu, K., Clarke, R.W., Deaver, D., Yamins, D., Wright, J., Peloquin, C.A., Weitz, D.A. and Edwards, D.A., 2003. Direct lung delivery of para-aminosalicylic acid by aerosol particles. *Tuberculosis* 83, 379-385.
- US Pharmacopeia 24-NF19, 2000. US Pharmacopeial Convention, Inc., Rockville, MD, USA.
- US Pharmacopeia 28-NF23, 2003. US Pharmacopeial Convention, Inc., Rockville, MD, USA.

- Vyas, S.P., Kannan, M.E., Jain, S., Mishra, V. and Singh, P., 2004. Design of liposomal aerosols for improved delivery of rifampicin to alveolar macrophages. *Int. J. Pharm.* 269, 37-49.
- Wade, A. and Weller, P. (Ed.), 1994. *Handbook of Pharmaceutical Excipients*. 2nd ed. London, The Pharmaceutical Press.
- White, R.J., Lancini, G.C. and Silvestri, L.G., 1971. Mechanism of action of rifampicin on *Mycobacterium smegmatis*. *J. Bacteriol.* 108, 737-741.
- Wiens, T., Redelmeier, T. and Av-Gay, Y., 2004. Development of liposome formulation of ethambutol. *Antimicrob. Agents Ch.* 48(5), 1887-1888.
- Winden, E.C.A. and Crommelin, D.J.A., 1999. Short term stability of freeze-dried, lyoprotected liposomes. *J. Control. Release* 58, 69-86.