Erratum to: "Pressure drop, gas hold-up and heat transfer during single and two-phase flow through porous media" [Int. J. Heat Fluid Flow 26 (2005) 156–172]

M. Jamialahmadi [a], H. Müller-Steinhagen [b,c,*], M.R. Izadpanah [d]

[a] University of Petroleum Industry, Ahwaz, Iran
[b] Institute for Thermodynamics and Thermal Engineering, University of Stuttgart, Pfaffenwaldring 38-10, Stuttgart 70569, Germany
[c] Institute of Technical Thermodynamics, German Aerospace Center (DLR), Germany
[d] The School of Engineering, University of Kerman, Kerman, Iran

The authors have been alerted by M.M. Awad from the faculty of Engineering and Applied Science, Memorial University of Newfoundland, Canada to a number of shortcomings in the above paper, which shall be corrected in the following.

Nomenclature	g gravitational acceleration, m/s² not m²/s
	G gas phase mass flow rate, kg/m² s not kg/m³
	k permeability, m² not m⁻²
	L liquid mass flow rate, kg/m² s not kg/m³
Table 1	permeability should be k (m²) not K (m⁻²)
Table 3	The Ford (1960) correlation should be $\frac{\Delta P_t}{L} = 0.0407 \rho_l \cdot Re_l^{0.29} \cdot Re_g^{0.57} \cdot \left(\frac{\mu_l}{\mu_g}\right)^{0.28} \cdot 1412.17$ if SI units are used. For the calculations reported in the paper, the proper unit conversion has been used, even though the originally given equation was in Imperial units. The Goto and Gaspillo (1992) correlation should be $\frac{\Delta P_t}{L} = y \cdot \left(\frac{\Delta P_l}{L} + \frac{\Delta P_g}{L}\right)$ where $\log y = \frac{0.55}{(\log(\chi/1.2))^2 + 0.666}$ Again, the calculated results presented in the paper are correct, even though a set of brackets has been missing in the original text.
Table 4	The Turpin and Huntington (1967) correlation should be $\varepsilon_l = -0.035 + 0.182\left(\frac{L}{G}\right)^{0.24}$ The Goto and Gaspillo (1992) correlation should $\log \frac{\varepsilon_l}{\delta} = -0.442(\log \chi)^2 + 0.386 \log \chi - 0.178$ In both cases, the calculations have used the correct form of these correlations.

The correct reference to the paper by Larkins et al. should be

Larkins, R.P., White, R.R., Jeffrey, D.W., 1961. Two-phase co-current flow in packed beds. AIChE J. 7, 231–239.

In the text, this paper should hence be referred to as Larkins et al. (1961).

Also, the paper

Khan, A., Khan, A.A., Varma, Y.B.G., 1997. Flow identification and pressure drop in co-current gas–liquid up flow through packed beds. Bioprocess Eng. 16, 355–360.

Should be referred to as Khan et al. (1997).

The proper reference to the paper by M.Y. Saada is

Saada, M.Y., 1975. Fluid mechanics of co-current two phase flow in packed beds, pressure drop and liquid hold-up studies, Periodica Polytechnia – Chem. Eng. 19, 317.

The authors are indebted to Dr. Awad for pointing out these shortcomings and apologize to any readers who may have been misled.