ERRATUM on the article: J.-S. Guo, Ph. Souplet, Fast rate of formation of dead-core for the heat equation with strong absorption and applications to fast blow-up, *Math. Ann.* 331 (2005), no. 3, 651–667.

The proof of Proposition 3.3 should be modified as follows:

- p660, l-4: replace "Since $V > 0$ for $y > 0$, W is smooth there. The equation for W is:"
with "At any point $y \in \mathbb{R}$ such that $W(y) > 0$, the equation for W is:"

- p661, l2: replace "$D = \{y > 0; \; H(y) \neq 0\}$"
with "$D = \{y \in \mathbb{R}; \; W(y) > 0 \text{ and } H(y) \neq 0\}$"

- p661, before l-8, add the following paragraph:
"Next observe that W (resp., Z) is extendable to a C^1 (resp., continuous) function up to $y = 0$. Indeed, using (3.2), $V'(0) = 0$, $V' \geq 0$ and integrating by parts, we have

$$V'(y) = \int_0^y V''(s)\, ds \leq \int_0^y \left[\frac{s}{2} V'(s) + V^p(s)\right] ds \leq y\left[\frac{1}{2} V(y) + V^p(y)\right], \qquad y > 0,$$

hence $0 \leq W'(y) = (1-p)V^{-p}V'(y) \leq (1-p)y(1 + \frac{1}{2}V^{1-p}(y)) \to 0, \quad y \to 0^+$, which implies the claim.

- p661, l-5: replace "and that $Z(y_1) > 0$ (hence $y_1 \in D$)."
with ". Moreover $Z(y_1) > Z(R) \geq 0$ (due to $f(y_1) > f(R)$) and $W(y_1) \geq W(0) = Z^{1-p}(0) > 0$, hence $y_1 \in D$."