Erratum

K. Eller, Reactions of monosubstituted alkanes with bare metal ions. An effort toward a more unified picture for the gas-phase chemistry of R–X molecules, *Coord. Chem. Rev., 126* (1993) 93–147.

Regrettably, the name of the author B.S. Freiser was incorrectly printed as B.S. Frieser in many of the references. We apologise for this inadvertent misprint.

Corrigendum

M. Scoponi, F. Pradella and V. Carassiti, Photodegradable polyolefins. Photo-oxidation mechanisms of innovative polyolefin copolymers containing double bonds, *Coord. Chem. Rev., 125* (1993) 219–230.

There is a page missing from this article. The extra page reproduced overleaf should be inserted between pages 222 and 223.

copolymerization of propylene or ethylene with dienes having conjugated double bonds. Such copolymers can be synthesized by stereospecific catalysts using either a halogen titanium compound supported on a magnesium halide (heterogeneous catalysts) [19] or a zirconiumcene in methylalluminoxane (homogeneous catalysis) [20]. During the polymerization the catalysts can control the morphology and stereochemistry of the copolymer in a better and efficient way than the others above-mentioned based on carbonyl and ketone copolymers. Their properties show the typical behaviour of semicrystalline polymers having a degree of crystallinity ranging from 30% to 55% depending upon the total amount of ethylene or propylene in the chains [21].

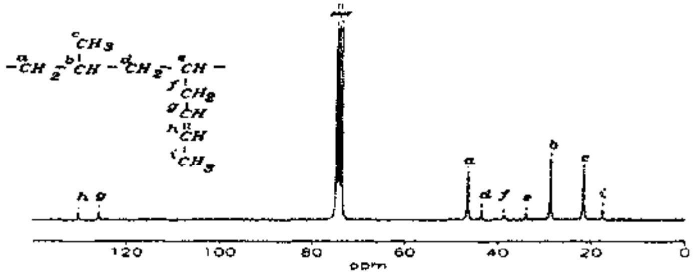

Figure 1. ^{13}C NMR at 50.33 MHz of poly(propylene-co-hexadiene) in $C_2D_2Cl_4$ at 115°C containing 15% (w/w) of hexadiene units in the chains.

^{13}C NMR spectra indicate that these copolymers possesses a high isotacticity which can favour the tendency of the fraction containing propylene or ethylene sequences to crystallize [22]. Figure 1 shows a rather simple ^{13}C NMR of poly(propylene-co-hexadiene) copolymer (PPH), where the excellent stereochemical control due to a heterogeneous catalyst produces a propylene fraction mainly in the isotactic conformation [23]. This means that the catalyst sites lead to enriched amorphous fractions of hexadiene units. The stereochemical sequences very well show that the diene unit is mainly located in the amorphous fraction of the polymer matrix.

It is well-known that the amorphous fraction is readily oxidized under photo-oxidative conditions because of the great permeability to oxygen [24]. In addition, the presence of diene can enhance significantly its photoreactivity. The combinations of these two effects due to both the morphology and to an intrinsic chemical reactivity has been confirmed by the photo-oxidation of EPDM ethylene- propylene-diene rubbers (EPDM) [25], which give a high radical yield formation in the rubber matrix. For these terpolymers the photo-oxidation processes are dominated by crosslinking reactions forming a polymer network [26].

Finally, the accelerated photo-oxidation tests simulating the outdoor exposure can give significant informations concerning the application of the polyolefin-based copolymers containing unsaturations as innovative and photodegradable plastic materials.