instead of " $154^{\circ}$ " in the caption of Fig. 4 and in line 5 from the end.-W. D. KumLer.

Calvin M. Lee and W. D. Kumler. The Dipole Moment and Structure of Five and Six Membered Lactams.

Page 4594. In col. 1, line 2, for "stabilized" read "destabilized." Line 4, omit "However" and for "raise" read "lower." Line 7, omit "Evidently the affects cancel."W. D. Kumler.

Calvin M. Lee and W. D. Kumler. The Dipole Moment and Structure of the Carbamate Group.

Page 4599. In col. 1, line 9 from the end, for " 1779 " read " 1795 " and for " 1698 " read " 1711 ."-W. D. Kumler.

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Calvin M. Lee and W. D. Kumler. The Dipole Moment of the Imide Group. I. Five and Six Membered Cyclic Imides.

Page 72. Equation (15) shonld read

$$
\begin{align*}
& q^{5 / 3}-q / 2=\frac{V_{0}}{V_{1} \nu_{e}}\left(\frac{1}{2}-\chi_{2}\right)+\frac{3000 z^{2}}{8 \pi \Gamma R_{0}^{3} N \nu_{0}}- \\
&  \tag{15}\\
& \frac{3000 z^{2}}{8 R_{0} \nu_{0} \epsilon} \frac{(1000 k T)^{1 / 2}}{(\pi N \Gamma)^{3 / 2}} \frac{D^{1 / 2}}{q^{1 / 3}}\left(1-\frac{3}{2 \kappa^{2} R_{0}^{2} q^{2 / 3}}\right)
\end{align*}
$$

All calculations were based on the correct equation, hence none of the conclusions of the paper are influenced by the errors.-K. E. Van Holde.

John A. Zderic, Lourdes Cervantes and Maria Teresa Galvan. Sapogenins. XLI. A New Reaction of the Spiroketal Side Chain.

Page 103, Column one, on line 6, instead of "tigogenin," read "11-oxotigogenin acetate and hecogenin acetate." Lines 13-17 should read: "Structures of this type also appeared likely in the present study."-JOHN A. ZDERIC.
P. A. S. Smith and J. H. Hall. Kinetic Evidence for the Formation of Azene (Electron-deficient Nitrogen) Intermediates from Aryl Azides.

Page 482. In Table V, the entry in the $\Delta H \neq$ column for " 5 -Nitro" should read " $31.6 \pm 0.3$ " instead of " $41.6 \pm$ 0.3."-Peter A. S. Smith.
R. E. Davis. Hydrolysis of Ethylene and Dimethyl Sulfite and the Origin of Strain in Cyclic Esters.

Page 603. The last paragraph does not separate clearly the facts from the prediction and contains an error. It should read: "As a result of data on the esters, two generalizations may be made. I. Kinetic acceleration (five membered $>$ open) is observed if the attack as hydroxide ion occurs on the hetero atom. II. Thermodynamic strain results upon closure of the five-membered ring only if the extra oxygen atom is present. If these patterns are general, we would predict that ethylene phosphite will not be strained compared to dimethyl phosphite. The magnitude of any strain should be less than $5 \mathrm{kcal} . / \mathrm{mole}$.-R. E. Davis.

Jay K. Kochi. Copper Salt-Catalyzed Reaction of Butenes with Peresters.

Page 776. The end of the third paragraph should read "The pentenyl acetate mixture consisted of $91 \%$ 3-acetoxy-pentene-1 and $9 \%$ 1-acetoxypentene- 2 . The pentenyl benzoate fraction consisted of $91 \%$ 3-benzoxypentene-1 and $9 \%$ 1-benzoxypentene-2."

Page 782. The next to last line in Table I should read "Percentage 1-acetoxypentene-2 in pentenyl acetate fraction, remainder is 3-acetoxypentene-1."-Jay J. Kochr.
W. H. Knoth, et al. Derivative Chemistry of $\mathrm{B}_{10} \mathrm{H}_{10}-$ and $\mathrm{B}_{12} \mathrm{H}_{12}{ }^{-}$.

Page 1056. The name of J. C. SauEr should be added to the list of authors.-Earl L. Muetterties.
Kurt Mislow, Seymour Hyden and Hans Schaefer. Stereochemistry of the 1,2,3,4-Dibenzcyclonona-1,3-diene System. A Note on the Racemization Barrier in Bridged Biphenyls.

Page 1450 . In col. 2, line 25, for "of Vb in aqueous basic dioxane," read "of VIb in aqueous basic dioxane."

Page 1452. In col. 2, line 25, for " $\alpha 79^{\circ}$ " read " $\alpha 139^{\circ}$."
Page 1453. In col. 1 , line 7 , for " $\alpha 72^{\circ}$ " read " $\alpha 132^{\circ}$.", In col, 2, line 15, for " 2,2 '-Bis-( 2 -bromomethyl)-biphenyl" read " 2,2 '-Bis-(2-bromoethyl)-biphenyl." -KURT Mislow.
Kenneth A. Connors. A Non-enzymatic Olefinic Hydration under Neutral Conditions; the Kinetics and Mechanism of the Hydration of Fumaric Acid Monoanion.

Page 1980. In Table I the headings " $k_{\mathrm{d}}$ " and " $k_{\mathrm{h}}$ " are interchanged in position in both parts of the table.Kenneth A. Connors.
L. D. Antonaccio, N. A. Pereira, B. Gilbert, H. Vorbrueggen, H. Budzikiewicz, J. M. Wilson, L. J. Durham and C. Djerassi. Alkaloid Studies. XXXIII. Mass Spectrometry in Structural and Stereochemical Problems. VI. Polyneuridine, A New Alkaloid from Aspidosperma Polyneuron and Some Observations on Mass Spectra of Indole Alkaloids.

Page 2166. In col. 2, 13 th line from the end read: "... while the quaternary hydroxide with opposite con. figuration at $\mathrm{C}_{16}$, macusine-A..."

Page 2167. In col. 1: In formulas XIV, $h$ through $j$, $R$ and $R^{\prime}$ should be reversed.

Page 2167. In col. 1, line 9, omit "and epimerization."Carl Djerassi.

Arthur C. Cope, Ruta K. Bly, Elizabeth P. Burrows, Olof J. Ceder, Engelbert Ciganek, Bernard T. Gillis, R. Frederick Porter and Herbert E. Johnson. Fungichromin: Complete Structure and Absolute Configuration at $\mathrm{C}_{26}$ and $\mathrm{C}_{27}$.

Page 2172, column 2 and page 2177, columns 1 and 2. Substitute $R$ for $D$ and $S$ for $L$ in all cases. The use of this convention eliminates the ambiguity of assignment of configuration at $\mathrm{C}_{26}$ which arises when the $\mathrm{D}, \mathrm{L}$ convention is used.

Page 2172. Formula 13 in the flow sheet should read

A. C. Cope.
J. K. Williams, D. W. Wiley and B. C. McKusick. 1,2,2-Tricyano-1,3-butadienes.

Page 2216. The title should read ' $1,1,2$-Tricyano-1,3-butadienes.-B. C. McKusick.
Mark N. Rerick and Ernest L. Eliel. Reduction with Metal Hydrides. IX. Reaction Paths in the Reduction of Epoxides with Lithium Aluminum Hydride and Aluminum Chloride.

Page 2356. In formula II the single hydrogen atom should be on the epoxide carbon bearing the $t$-butyl group, not on the one bearing the two methyl groups.

Page 2358. In Table III, in the heading under " $\%$ $\mathrm{Ph}_{3} \mathrm{CCH}_{2} \mathrm{OH}$ " on "(V)" read "(VIII)."-E. L. Eliel.

Howard Haubenstock and Ernest L. Eliel. Reduction with Metal Hydrides. $X$. The Stereochemistry of Reduction of $3,3,5$-Trimethylcyclohexanone with Complex Aluminohydrides.

Page 2363. In col. 2, lines 8 and 9, for " 3 - $\beta$-cholestanol" read " $3 \alpha$-cholestanol".-ЕE. L. ELIEL.

Howard Haubenstock and Emest L. Eliel. Reduction with Metal Hydrides. XI. Solvent Effects on the Stereochemistry of Reduction with Sodium Borohydride.

Page 2369. In col. 1, under the row of formulas, for "Dihydroisophenone" read "Dihydroisophorone" and in line 7, for "4-tropine" read " $\psi$-tropine."-E. L. Eliel.

Ernest L. Eliel, Victor G. Badding and Mark N. Rerick. Reduction with Metal Hydrides. XII. Reduction of

| Fig. | Compound (Solvent) | Table I* |  |  | - Short-wave length region |  | emag $\times 10^{-8}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $[\alpha]^{3} \times 10^{-4} \quad$ Long-wave length region- $[\theta]_{\text {max }} \times 10^{-4} \quad \times 10^{-9}$ |  |  |  |  |  |
|  |  |  |  |  | $[\alpha]^{6} \times 10^{-4}$ | $[0]_{\text {max }} \times 10^{-4}$ |  |
| 1 | I (isoöctane) | +14.2(304) ${ }^{\text {c }}$ | +9.85 (307) | 8.05 (308) ${ }^{3}$ |  | Positive to $250 \mathrm{~m} \mu$ | 66 (228) |
| 2 | II (isoöctane) | $+7.8(302)^{\text {d.e }}$ | +3.18 (306) ${ }^{\text {e }}$ | 2.77 (307.5) ${ }^{\text {c }}$ |  | Positive below $250 \mathrm{~m} \mu$ |  |
| 3 | III (isocictane) | $+5.2(298)^{\text {d, }}$ | $+3.35(296)^{f}$ | 1.22 (296) ${ }^{\text {c }}$ |  |  |  |
| 4 | IV (isoöctane) | $+13.7(297)^{8}$ | +10.8 (296) | 6.70 (297.5) ${ }^{\text {i }}$ |  | +9.65 (245) | $98(245)^{\text {a }}$ |
| 4 | V (isoöctane) | $-15.2(301)^{0 . h}$ | -10.6 (297) | 6.70 (297.5) ${ }^{\text {i }}$ | $-16.2(243)^{0 . h}$ | -9.5 (245) | 88 (245) ${ }^{\circ}$ |
| 5 | VI (isoōctane) |  | - 0.33 (282) | 6.0 (274) ${ }^{\text {a,i }}$ | -13.0 (242) ${ }^{\text {a }}$ | -7.7 (240) | 115 (240.5) ${ }^{\text {d }}$ |
|  |  |  | + 0.60 (269) |  |  |  |  |
| 5 | VII (dioxane) |  | + 0.59 (271) | 8.90 (281) ${ }^{\text {a }}$ | -9.8 (241) ${ }^{\text {d }}$ | -7.8 (245) | 111 (244.5) ${ }^{\text {a }}$ |
|  |  |  |  | 18.3 (270) ${ }^{\text {a }}$ |  |  |  |
| 6 | VIII (dioxane) | ... | - 4.15 (330) | 142 (348) ${ }^{\circ}$ | +157 (253) ${ }^{\text {a }}$ | +8.5 (255) | 519 (240) ${ }^{\text {a }}$ |

${ }^{a}$ Values in parentheses are wave lengths in $\mathrm{m} \mu$. ${ }^{b}$ Molecular amplitude of O.R.D. curves with wave lengths taken halfway between extrema. © A. Moscowitz, K. Mislow, M. A. W. Glass and C. Djerassi, J. Am. Chem. Soc., 84, 1945 (1962). ${ }^{d}$ K. Mislow and J. G. Berger, ibid., 84,1856 (1962). © After correction to optical purity assuming $48 \%$ optical purity for the sample (ref. d). After correction to optical purity assuming $40 \%$ optical purity for the sample (ref. $d$ ). o K. Mislow, M. A. W. Glass, R. E. O'Brien, P. Rutkin, D. H. Steinberg, J. Weiss and C. Djerassi, J, Am. Chem. Soc., 84,1455 (1962). ${ }^{h}$ Refers to solvent dioxane. 'Shoulder. i After subtraction of the aromatic absorption band (ref. $c$ ).

Acetals and Ketals with Lithium Aluminum HydrideAluminum Chloride.

Page 2372. In col. 2, Table III, entry 5, the bond should be to the methine carbon rather than the methyl carbon at the bottom of the formula.

Page 2374. In col. 2, last line, for "lit. ${ }^{68 "}$ " read "lit. ${ }^{34 . " ~}$
Page 2375. In col. 1, line 15 , for " $\alpha$-hydroxypropyl" read " $\gamma$-hydroxypropyl."

Page 2376. In col. 1, second heading, for " 2 -Cyclo-hexyloxy-2-methyl-2-propanol" read " 2 -Cyclohexyloxy-2-methyl-1-propanol." In col. 2, line 26 , end of line for " $n$ 20 D " read " $n{ }^{25} \mathrm{D}$."

Page 2377. In Table IV, the entries given for $\mathrm{Vb}, \mathrm{VIb}$ and VIlb under $m / e 27$ actually refer to $m / e 28$. The correct entries for $m / e 27$ are $36.06,36.03$ and 35.96. In col. 2, line 5, for " $94^{\circ}$ ( 12 mm .)" read " $84^{\circ}$ ( 12 mm .)."E. L. Eliel.

Ernest L. Eliel, Louis A. Pilato and Victor G. Badding. Reduction with Metal Hydrides. XIII. Hydrogenolysis of Hemithioacetals and Hemithioketals with Lithium Aluminum Hydride-Aluminum Chloride.

Page 2381. In col. 2, line 17, for "284.0 g." read " 284.0 mg ." Line $35-36$, for "m.p. 118-114"" read "m.p. 118$144^{\circ}$."

Page 2382. In Table III, col. 1, first heading, for "Ethylene ketal- or hemithio acetal of" read "Ethylene hemithioketal or hemithioacetal of." Second heading, for "Trimethylene acetal or hemithioketal of" read "Trimethylene hemithioacetal or hemithioketal of."-E. L. Eliel.

John L. Kice and Kerry W. Bowers. Mechanism of Reactions of Sulfinic Acids. II.

Page 2386. "In eq. 5 b for " $k_{0}$ " read " $k_{0}$." In eq. 5 c for " $k_{0}$ " read " $k_{\mathrm{e}}$."-JOHN L. KICE.
R. L. Hinman and E. B. Whipple. The Protonation of Indoles: Position of Protonation.

Page 2535. To correct for errors in the original calculations of $\log \epsilon$ the ultraviolet absorption curves of Fig. 1 should be translated vertically by these amounts: curve 1 , no change; curve $2,-0.15$; curve $3,-0.38$; curve 4 , -0.15 ; curve 5 , no change.

Page 2538. The data from the ultraviolet absorption curves of 2,3,3-trimethylindolenine should read:

W. Herz, H. Watanabe, M. Miyazaki and Y. Kishida. The Structures of Parthenin and Ambrosin.

Page 2603. Formula I should be


Werner Herz.
E. Bunnenberg, Carl Djerassi, Kurt Mislow and Albert Moscowitz. Correspondence between Absorption and Circular Dichroism Curves of Inherently Dissymmetric Chromophores.

Pages 2823 ff . In our first commnnication on the subject we alluded to the close relationship which exists between absorption, optical rotatory dispersion and circular dichroism (C.D.) curves of optically active substances possessing inherently dissymmetric chromophores. At that time we remarked on the observation that the long-wave length C. D. bands were somewhat narrower than the corresponding absorption bands and that the short-wave length C.D. maxima were red-shifted relative to the absorption bands. Although these displacement; did not seem to be unreasonable, we have now found that the C.D. and absorption curves are actually in much closer correspondence (see corrected portions of Table I above to be substituted in original Table I). The earlier apparent discrepancies were largely artifacts resulting from mechanical failure in the wave length scan mechanism of the monochromator in the Baird-Atomic/ Jonan Dichrograpli (Model JO-1) which was used in the work--Carl Djerassi.
R. G. Hayter. Transition Metal Complexes of Secondary Phospinines. I. Palladinm(II) and Diphenylphosphine.

Page 3049. In col. 2, line 2 from the end, for " 1 " read "0.586."

Page 3050. In Table IV, col. 3, for " 1 '" in lines 1-3, read " 0.586 ." In col. 5 , for " 0.862 " in lines $1-3$, read " 1.47 ."R. G. Hayter.

Jay K. Kochi. Oxidation of Allylic Radicals by Electron Transfer: Effect of Complex Copper Salts.
Page 3271. In Fig. 1, the ordinate division numbers should read 50 to $100 \%$ instead of $4 \%$ to $90 \%$ as printed.Jay K. Kochi.
L. S. Forster, A. Moscowitz, J. G. Berger and K. Mislow. Inherently Nissumetric Chromophores. Optical Activity Associated with a Fomoconjergated Diene.
Page 4353 ff . Componnd I desisnates ( + )-(1R)-5methylenebicyclu\{2.2.1 hept-2-ene and not $(+)-(1 R)-5-$ methylenebicyclo\{2.2.2]hept-2-ene as incorrectly inclicated in line 3 of the text and in the caption of the figure - Abbert Moscowitz.

